

## WEST Search History





DATE: Thursday, May 25, 2006

<b>Hide?</b>	<b>Set Name</b>	<b>Query</b>	<b>Hit Count</b>
		<i>DB=PGPB,USPT,EPAB,JPAB,DWPI; PLUR=YES; OP=OR</i>	
<input type="checkbox"/>	L16	L15 and pef\$4	24
<input type="checkbox"/>	L15	L14 and dutpas\$4	25
<input type="checkbox"/>	L14	L13 and (pfu\$4 or taq\$4 or aquatic\$4 or furios\$4)	82
<input type="checkbox"/>	L13	L6 and ((Hogrefe or Hansen).in. or stratagene.asn.)	91
<input type="checkbox"/>	L12	L1 and stratagene.asn.	188
<input type="checkbox"/>	L11	L1 and (Hogrefe or Hansen).in.	263
<input type="checkbox"/>	L10	l8 and (gp\$4 or gp32\$4)	9
<input type="checkbox"/>	L9	L8 same (gp\$4 or gp32\$4)	0
<input type="checkbox"/>	L8	L7 same (enhanc\$4 or dutpas\$4)	81
<input type="checkbox"/>	L7	L6 same (pfu\$4 or taq\$4 or aquatic\$4 or furios\$4)	3851
<input type="checkbox"/>	L6	L1 same exonucleas\$4	7635
<input type="checkbox"/>	L5	L4 and (gp\$4 or gp32\$4)	2332
<input type="checkbox"/>	L4	L3 and (enhanc\$5 or dutpas\$4)	7436
<input type="checkbox"/>	L3	L2 and (pfu\$4 or taq\$4 or aquatic\$4 or furios\$4)	8644
<input type="checkbox"/>	L2	L1 and exonucleas\$4	13265
<input type="checkbox"/>	L1	dna\$4 same polymeras\$4	79731

END OF SEARCH HISTORY

=> d his full

(FILE 'HOME' ENTERED AT 21:40:09 ON 25 MAY 2006)

INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, ANTE, AQUALINE, AQUASCI, BIOENG, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CAPLUS, CEABA-VTB, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU, DGENE, DISSABS, DRUGB, DRUGMONOG2, DRUGU, EMBAL, EMBASE, ...' ENTERED AT 21:40:31 ON 25 MAY 2006  
SEA POLYMERAS?(S)DNA?

5500 FILE ADISCTI  
260 FILE ADISINSIGHT  
63 FILE ADISNEWS  
4297 FILE AGRICOLA  
379 FILE ANABSTR  
74 FILE ANTE  
108 FILE AQUALINE  
1629 FILE AQUASCI  
5780 FILE BIOENG  
71017 FILE BIOSIS  
20594 FILE BIOTECHABS  
20594 FILE BIOTECHDS  
43907 FILE BIOTECHNO  
14152 FILE CABA  
59120 FILE CAPLUS  
1051 FILE CEABA-VTB  
177 FILE CIN  
908 FILE CONFSCI  
27 FILE CROPB  
80 FILE CROPU  
604 FILE DDFB  
1919 FILE DDFU  
133931 FILE DGENE  
3820 FILE DISSABS  
604 FILE DRUGB  
3190 FILE DRUGU  
525 FILE EMBAL  
51493 FILE EMBASE  
28077 FILE ESBIODBASE  
623 FILE FROSTI  
407 FILE FSTA  
1534612 FILE GENBANK  
135 FILE HEALSAFE  
5709 FILE IFIPAT  
41 FILE IMSDRUGNEWS  
72 FILE IMSRESEARCH  
5626 FILE JICST-EPLUS  
38 FILE KOSMET  
36341 FILE LIFESCI  
57883 FILE MEDLINE  
507 FILE NTIS  
2 FILE NUTRACEUT  
507 FILE OCEAN  
31260 FILE PASCAL  
208 FILE PCTGEN  
547 FILE PHAR  
35 FILE PHARMAML  
2 FILE PHIC  
272 FILE PHIN  
2652 FILE PROMT  
236 FILE PROUSDDR  
6 FILE RDISCLOSURE  
40090 FILE SCISEARCH  
5 FILE SYNTHLINE  
25034 FILE TOXCENTER  
67666 FILE USPATFULL  
6062 FILE USPAT2  
8 FILE VETB

52 FILE VETU  
132 FILE WATER  
6559 FILE WPIDS  
45 FILE WPIFV  
6559 FILE WPINDEX  
171 FILE IPA  
256 FILE NAPRALERT  
2364 FILE NLDB  
L1 QUE POLYMERAS?(S) DNA?

-----  
D RANK

FILE 'BIOSIS, USPATFULL, CAPLUS, MEDLINE, EMBASE, BIOTECHNO, SCISEARCH,  
LIFESCI' ENTERED AT 21:44:53 ON 25 MAY 2006

L2 427517 SEA POLYMERAS?(S) DNA?  
L3 30762 SEA L2 (S)(PFU? OR TAQ? OR FURIO? OR AQUATIC?)  
L4 4130 SEA L3(S) EXONUCLEAS?  
L5 94 SEA L4 (S)(ENHANC? OR DUTPAS?)  
L6 90 DUP REM L5 (4 DUPLICATES REMOVED)  
D TI L6 1-90  
D IBIB ABS L6 10 11 16 28 36 44 48 74 78 83 88 90  
L7 26 SEA L4 (S)(GP32? OR GP?)  
L8 26 DUP REM L7 (0 DUPLICATES REMOVED)  
D TI L8 1-26  
D L8 IBIB ABS  
D L8 1-26 IBIB ABS

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:ssspta1652dmr

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

\* \* \* \* \* Welcome to STN International \* \* \* \* \*

NEWS 1 Web Page URLs for STN Seminar Schedule - N. America  
NEWS 2 "Ask CAS" for self-help around the clock  
NEWS 3 JAN 17 Pre-1988 INPI data added to MARPAT  
NEWS 4 FEB 21 STN AnaVist, Version 1.1, lets you share your STN AnaVist  
visualization results  
NEWS 5 FEB 22 The IPC thesaurus added to additional patent databases on STN  
NEWS 6 FEB 22 Updates in EPFULL; IPC 8 enhancements added  
NEWS 7 FEB 27 New STN AnaVist pricing effective March 1, 2006  
NEWS 8 MAR 03 Updates in PATDPA; addition of IPC 8 data without attributes  
NEWS 9 MAR 22 EMBASE is now updated on a daily basis  
NEWS 10 APR 03 New IPC 8 fields and IPC thesaurus added to PATDPAFULL  
NEWS 11 APR 03 Bibliographic data updates resume; new IPC 8 fields and IPC  
thesaurus added in PCTFULL  
NEWS 12 APR 04 STN AnaVist \$500 visualization usage credit offered  
NEWS 13 APR 12 LINSPEC, learning database for INSPEC, reloaded and enhanced  
NEWS 14 APR 12 Improved structure highlighting in FQHIT and QHIT display  
in MARPAT  
NEWS 15 APR 12 Derwent World Patents Index to be reloaded and enhanced during  
second quarter; strategies may be affected  
NEWS 16 MAY 10 CA/CAPLUS enhanced with 1900-1906 U.S. patent records  
NEWS 17 MAY 11 KOREAPAT updates resume  
NEWS 18 MAY 19 Derwent World Patents Index to be reloaded and enhanced  
  
NEWS EXPRESS FEBRUARY 15 CURRENT VERSION FOR WINDOWS IS V8.01a,  
CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),  
AND CURRENT DISCOVER FILE IS DATED 19 DECEMBER 2005.  
V8.0 AND V8.01 USERS CAN OBTAIN THE UPGRADE TO V8.01a AT  
<http://download.cas.org/express/v8.0-Discover/>  
  
NEWS HOURS STN Operating Hours Plus Help Desk Availability  
NEWS LOGIN Welcome Banner and News Items  
NEWS IPC8 For general information regarding STN implementation of IPC 8  
NEWS X25 X.25 communication option no longer available after June 2006

Enter NEWS followed by the item number or name to see news on that  
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\* \* \* \* \*

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In an effort to enhance your experience with STN, we would like to better understand what you find useful. Please take approximately 5 minutes to complete a web survey.

If you provide us with your name, login ID, and e-mail address, you will be entered in a drawing to win a free iPod(R). Your responses will be kept confidential and will help us make future improvements to STN.

Take survey: <http://www.zoomerang.com/survey.zgi?p=WEB2259HNKWTUW>

Thank you in advance for your participation.

\* \* \* \* \* STN Columbus \* \* \* \* \*

FILE 'HOME' ENTERED AT 21:40:09 ON 25 MAY 2006

=> index bioscience medicine

FILE 'DRUGMONOG' ACCESS NOT AUTHORIZED

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, ANTE, AQUALINE, AQUASCI, BIOENG, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CAPLUS, CEABA-VTB, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU, DGENE, DISSABS, DRUGB, DRUGMONOG2, DRUGU, EMBAL, EMBASE, ...' ENTERED AT 21:40:31 ON 25 MAY 2006

71 FILES IN THE FILE LIST IN STNINDEX

Enter SET DETAIL ON to see search term postings or to view search error messages that display as 0\* with SET DETAIL OFF.

=> s polymeras?(s)dna?

5500 FILE ADISCTI  
260 FILE ADISINSIGHT  
63 FILE ADISNEWS  
4297 FILE AGRICOLA  
379 FILE ANABSTR  
74 FILE ANTE  
108 FILE AQUALINE  
1629 FILE AQUASCI  
5780 FILE BIOENG  
71017 FILE BIOSIS  
20594 FILE BIOTECHABS  
20594 FILE BIOTECHDS  
43907 FILE BIOTECHNO  
14152 FILE CABA  
59120 FILE CAPLUS  
1051 FILE CEABA-VTB  
177 FILE CIN  
908 FILE CONFSCI  
27 FILE CROPB  
80 FILE CROPU  
604 FILE DDFB

21 FILES SEARCHED...

1919 FILE DDFU  
133931 FILE DGENE

23 FILES SEARCHED...

3820 FILE DISSABS  
604 FILE DRUGB  
3190 FILE DRUGU  
525 FILE EMBAL  
51493 FILE EMBASE  
28077 FILE ESBIODBASE

623 FILE FROSTI  
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 35 FILES SEARCHED...  
 135 FILE HEALSAFE  
 5709 FILE IFIPAT  
 41 FILE IMSDRUGNEWS  
 72 FILE IMSRESEARCH  
 5626 FILE JICST-EPLUS  
 38 FILE KOSMET  
 36341 FILE LIFESCI  
 57883 FILE MEDLINE  
 507 FILE NTIS  
 2 FILE NUTRACEUT  
 507 FILE OCEAN  
 31260 FILE PASCAL  
 208 FILE PCTGEN  
 547 FILE PHAR  
 35 FILE PHARMAML  
 2 FILE PHIC  
 272 FILE PHIN  
 2652 FILE PROMT  
 236 FILE PROUSDDR  
 6 FILE RDISCLOSURE  
 40090 FILE SCISEARCH  
 5 FILE SYNTHLINE

59 FILES SEARCHED...  
 25034 FILE TOXCENTER  
 67666 FILE USPATFULL  
 6062 FILE USPAT2  
 8 FILE VETB  
 52 FILE VETU  
 132 FILE WATER  
 6559 FILE WPIDS  
 45 FILE WPIFV  
 6559 FILE WPINDEX  
 171 FILE IPA  
 256 FILE NAPRALERT  
 2364 FILE NLDB

66 FILES HAVE ONE OR MORE ANSWERS, 71 FILES SEARCHED IN STNINDEX

L1 QUE POLYMERAS?(S) DNA?

=> d rank

F1	1534612	GENBANK
F2	133931	DGENE
F3	71017	BIOSIS
F4	67666	USPATFULL
F5	59120	CAPLUS
F6	57883	MEDLINE
F7	51493	EMBASE
F8	43907	BIOTECHNO
F9	40090	SCISEARCH
F10	36341	LIFESCI
F11	31260	PASCAL
F12	28077	ESBIOBASE
F13	25034	TOXCENTER
F14	20594	BIOTECHABS
F15	20594	BIOTECHDS
F16	14152	CABA
F17	6559	WPIDS
F18	6559	WPINDEX
F19	6062	USPAT2
F20	5780	BIOENG

F21	5709	IFIPAT
F22	5626	JICST-EPLUS
F23	5500	ADISCTI
F24	4297	AGRICOLA
F25	3820	DISSABS
F26	3190	DRUGU
F27	2652	PROMT
F28	2364	NLDB
F29	1919	DDFU
F30	1629	AQUASCI
F31	1051	CEABA-VTB
F32	908	CONFSCI
F33	623	FROSTI
F34	604	DDFB
F35	604	DRUGB
F36	547	PHAR
F37	525	EMBAL
F38	507	NTIS
F39	507	OCEAN
F40	407	FSTA
F41	379	ANABSTR
F42	272	PHIN
F43	260	ADISINSIGHT
F44	256	NAPRALERT
F45	236	PROUSDDR
F46	208	PCTGEN
F47	177	CIN
F48	171	IPA
F49	135	HEALSAFE
F50	132	WATER
F51	108	AQUALINE
F52	80	CROPU
F53	74	ANTE
F54	72	IMSRESEARCH
F55	63	ADISNEWS
F56	52	VETU
F57	45	WPIFV
F58	41	IMSDRUGNEWS
F59	38	KOSMET
F60	35	PHARMAML
F61	27	CROPB
F62	8	VETB
F63	6	RDISCLOSURE
F64	5	SYNTHLINE
F65	2	NUTRACEUT
F66	2	PHIC

=> file f3-f10

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

4.27

4.48

FILE 'BIOSIS' ENTERED AT 21:44:53 ON 25 MAY 2006

Copyright (c) 2006 The Thomson Corporation

FILE 'USPATFULL' ENTERED AT 21:44:53 ON 25 MAY 2006

CA INDEXING COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'CAPLUS' ENTERED AT 21:44:53 ON 25 MAY 2006

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

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FILE 'MEDLINE' ENTERED AT 21:44:53 ON 25 MAY 2006

FILE 'EMBASE' ENTERED AT 21:44:53 ON 25 MAY 2006  
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FILE 'BIOTECHNO' ENTERED AT 21:44:53 ON 25 MAY 2006  
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FILE 'SCISEARCH' ENTERED AT 21:44:53 ON 25 MAY 2006  
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FILE 'LIFESCI' ENTERED AT 21:44:53 ON 25 MAY 2006  
COPYRIGHT (C) 2006 Cambridge Scientific Abstracts (CSA)

=> s polymeras?(s)dna?

L2 427517 POLYMERAS?(S) DNA?

=> s l2 (s)(pfu? or taq? or furio? or aquatic?)

L3 30762 L2 (S) (PFU? OR TAQ? OR FURIO? OR AQUATIC?)

=> s l3(s)exonucleas?

L4 4130 L3(S) EXONUCLEAS?

=> s l4 (s)(enhanc? or dutpas? or 32?)

TERM '32?' EXCEEDED TRUNCATION LIMITS - SEARCH ENDED

You have entered a truncated stem which occurs in too many terms.  
Make the stem longer and try again. For example, if your original  
term was 'degr?' to search for variations and the abbreviation for  
'degradation', you could replace it with the expression '(degrdn OR  
degrad?)'. If your search term was numeric, e.g., 'C>5', reduce the  
size of the range.

=> s l4 (s)(enhanc? or dutpas?)

L5 94 L4 (S) (ENHANC? OR DUTPAS?)

=> dup rem l5

PROCESSING COMPLETED FOR L5

L6 90 DUP REM L5 (4 DUPLICATES REMOVED)

=> d ti l6 1-90

L6 ANSWER 1 OF 90 USPATFULL on STN

TI Methods of using FET labeled oligonucleotides that include a 3'-5'  
exonuclease resistant quencher domain and compositions for practicing  
the same

L6 ANSWER 2 OF 90 USPATFULL on STN

TI Thermostable enzyme promoting the fidelity of thermostable DNA  
polymerases-for improvement of nucleic acid synthesis and amplification  
in vitro

L6 ANSWER 3 OF 90 USPATFULL on STN

TI Complete genome and protein sequence of the hyperthermophile  
methanopyrus kandleri av19 and monophyly of archael methanogens and  
methods of use thereof

L6 ANSWER 4 OF 90 USPATFULL on STN

TI Method for plasmid preparation by conversion of open circular plasmid to  
supercoiled plasmid

L6 ANSWER 5 OF 90 USPATFULL on STN

TI PURIFIED THERMOSTABLE PYROCOCCUS FURIOSUS DNA POLYMERASE I

L6 ANSWER 6 OF 90 USPATFULL on STN

TI Nucleotide sequences specific to Francisella tularensis and methods for



the detection of *Francisella tularensis*

- L6 ANSWER 7 OF 90 USPATFULL on STN  
TI BINARY PROBE AND CLAMP COMPOSITION.
- L6 ANSWER 8 OF 90 USPATFULL on STN  
TI Nucleotide sequences specific to *Yersinia pestis* and methods for the detection of *Yersinia pestis*
- L6 ANSWER 9 OF 90 USPATFULL on STN  
TI Genotype specific detection of *Chlamydophila psittaci*
- L6 ANSWER 10 OF 90 USPATFULL on STN  
TI Thermostable enzyme promoting the fidelity of thermostable DNA polymerases-for improvement of nucleic acid synthesis and amplification in vitro
- L6 ANSWER 11 OF 90 USPATFULL on STN  
TI Purified thermostable *Pyrococcus furiosus* DNA polymerase I
- L6 ANSWER 12 OF 90 USPATFULL on STN  
TI Oligonucleotides labeled with a plurality of fluorophores
- L6 ANSWER 13 OF 90 USPATFULL on STN  
TI Method for plasmid preparation by conversion of open circular plasmid to supercoiled plasmid
- L6 ANSWER 14 OF 90 USPATFULL on STN  
TI Nucleic acid molecules encoding cel I endonuclease and methods of use thereof
- L6 ANSWER 15 OF 90 USPATFULL on STN  
TI Method of increasing complementarity in a heteroduplex
- L6 ANSWER 16 OF 90 USPATFULL on STN  
TI Compositions and methods for synthesizing cDNA
- L6 ANSWER 17 OF 90 USPATFULL on STN  
TI DNA polymerase compositions for quantitative PCR and methods thereof
- L6 ANSWER 18 OF 90 USPATFULL on STN  
TI DNA polymerase fusions and uses thereof
- L6 ANSWER 19 OF 90 USPATFULL on STN  
TI Synthesis and compositions of 2'-terminator nucleotides
- L6 ANSWER 20 OF 90 USPATFULL on STN  
TI Detection format for hot start real time polymerase chain reaction
- L6 ANSWER 21 OF 90 USPATFULL on STN  
TI Compositions and methods for random nucleic acid mutagenesis
- L6 ANSWER 22 OF 90 USPATFULL on STN  
TI Methods and compositions for amplification of dna
- L6 ANSWER 23 OF 90 USPATFULL on STN  
TI Pfu replication accessory factors and methods of use
- L6 ANSWER 24 OF 90 CAPLUS COPYRIGHT 2006 ACS on STN  
TI Construction of thermostable DNA polymerase I variants from *Thermus aquaticus* having enhanced catalytic activities for use in RT-PCR, and screening thermostable enzyme variants using bacteriophage display
- L6 ANSWER 25 OF 90 USPATFULL on STN  
TI Methods and compositions for RNA detection and quantitation

L6 ANSWER 26 OF 90 USPATFULL on STN  
TI Compositions and methods for reverse transcriptase-polymerase chain reaction (RT-PCR)

L6 ANSWER 27 OF 90 USPATFULL on STN  
TI DNA polymerase blends and uses thereof

L6 ANSWER 28 OF 90 USPATFULL on STN  
TI Nucleic acid modifying enzymes

L6 ANSWER 29 OF 90 USPATFULL on STN  
TI Method of increasing complementarity in a heteroduplex

L6 ANSWER 30 OF 90 USPATFULL on STN  
TI Method of detecting inorganic phosphoric acid, pyrophosphate and nucleic acid, and method of typing SNP sequence of DNA

L6 ANSWER 31 OF 90 USPATFULL on STN  
TI Polynucleotide sequence variants

L6 ANSWER 32 OF 90 USPATFULL on STN  
TI Primers and primer sets for use in methods to detect the presence of *Acidovorax avenae* subsp. *citrulli*

L6 ANSWER 33 OF 90 USPATFULL on STN  
TI Pesticidally active proteins and polynucleotides obtainable from *Paenibacillus* species

L6 ANSWER 34 OF 90 USPATFULL on STN  
TI DNA polymerases with reduced base analog detection activity

L6 ANSWER 35 OF 90 USPATFULL on STN  
TI DNA polymerases with reduced base analog detection activity

L6 ANSWER 36 OF 90 USPATFULL on STN  
TI Compositions for DNA amplification, synthesis, and mutagenesis

L6 ANSWER 37 OF 90 USPATFULL on STN  
TI Detection and quantification of human herpes viruses

L6 ANSWER 38 OF 90 USPATFULL on STN  
TI Method for the specific determination of dna sequences by means of parallel amplification

L6 ANSWER 39 OF 90 USPATFULL on STN  
TI Compositions and methods utilizing DNA polymerases

L6 ANSWER 40 OF 90 USPATFULL on STN  
TI Methods for identifying low-abundance polynucleotides and related compositions

L6 ANSWER 41 OF 90 USPATFULL on STN  
TI Methods of using improved polymerases

L6 ANSWER 42 OF 90 USPATFULL on STN  
TI DNA polymerase mutants with reverse transcriptase activity

L6 ANSWER 43 OF 90 USPATFULL on STN  
TI Method of increasing complementarity in a heteroduplex

L6 ANSWER 44 OF 90 USPATFULL on STN  
TI High fidelity DNA polymerase compositions and uses therefor

L6 ANSWER 45 OF 90 USPATFULL on STN

TI Methods of using FET labeled oligonucleotides that include a 3'-5' exonuclease resistant quencher domain and compositions for practicing the same

L6 ANSWER 46 OF 90 USPATFULL on STN  
TI Gene expression analysis using nicking agents

L6 ANSWER 47 OF 90 USPATFULL on STN  
TI Methods of using FET labeled oligonucleotides that include a 3'-5' exonuclease resistant quencher domain and compositions for practicing the same

L6 ANSWER 48 OF 90 USPATFULL on STN  
TI Nucleic acid modifying enzymes

L6 ANSWER 49 OF 90 USPATFULL on STN  
TI Method for the detection of salmonella enterica serovar enteritidis

L6 ANSWER 50 OF 90 USPATFULL on STN  
TI Nucleic acid molecules encoding CEL I endonuclease and methods of use thereof

L6 ANSWER 51 OF 90 USPATFULL on STN  
TI Methylation analysis using nicking agents

L6 ANSWER 52 OF 90 USPATFULL on STN  
TI Nucleic acid modifying enzymes

L6 ANSWER 53 OF 90 USPATFULL on STN  
TI Nucleic acid molecules encoding endonucleases and methods of use thereof

L6 ANSWER 54 OF 90 USPATFULL on STN  
TI High fidelity DNA polymerase compositions and uses therefor

L6 ANSWER 55 OF 90 USPATFULL on STN  
TI Exponential amplification of nucleic acids using nicking agents

L6 ANSWER 56 OF 90 USPATFULL on STN  
TI Composition and method for hot start nucleic acid amplification

L6 ANSWER 57 OF 90 USPATFULL on STN  
TI Compositions and methods for reverse transcriptase-polymerase chain reaction (RT-PCR)

L6 ANSWER 58 OF 90 USPATFULL on STN  
TI Nucleic acid amplification using nicking agents

L6 ANSWER 59 OF 90 USPATFULL on STN  
TI In vitro method to create circular molecules for use in transformation

L6 ANSWER 60 OF 90 USPATFULL on STN  
TI Exponential nucleic acid amplification using nicking endonucleases

L6 ANSWER 61 OF 90 USPATFULL on STN  
TI DNA polymerases with enhanced length of primer extension

L6 ANSWER 62 OF 90 USPATFULL on STN  
TI COMPOSITIONS FOR DNA AMPLIFICATION, SYNTHESIS, AND MUTAGENESIS

L6 ANSWER 63 OF 90 USPATFULL on STN  
TI Computer-assisted means for assessing lifestyle risk factors

L6 ANSWER 64 OF 90 USPATFULL on STN  
TI Nucleic acid modifying enzymes

L6 ANSWER 65 OF 90 CAPLUS COPYRIGHT 2006 ACS on STN  
 TI DNA polymerases and their mutants with improved properties for nucleic acid sequencing and amplification

L6 ANSWER 66 OF 90 BIOTECHNO COPYRIGHT 2006 Elsevier Science B.V. on STN  
 TI Cloning, expression, and purification of the His.sub.6-tagged hyper-thermostable dUTPase from Pyrococcus woesei in Escherichia coli: Application in PCR

L6 ANSWER 67 OF 90 USPATFULL on STN  
 TI Method of increasing complementarity in a heteroduplex

L6 ANSWER 68 OF 90 USPATFULL on STN  
 TI Method of increasing complementarity in a heteroduplex

L6 ANSWER 69 OF 90 USPATFULL on STN  
 TI Compositions comprising a M-MLV reverse transcriptase and a DNA polymerase and use thereof

L6 ANSWER 70 OF 90 USPATFULL on STN  
 TI Purified thermostable Pyrococcus furiosus DNA polymerase I

L6 ANSWER 71 OF 90 USPATFULL on STN  
 TI Polynucleotide pools enriched in either high-abundance or low-abundance sequences

L6 ANSWER 72 OF 90 USPATFULL on STN  
 TI DNA polymerases with enhanced length of primer extension

L6 ANSWER 73 OF 90 LIFESCI COPYRIGHT 2006 CSA on STN  
 TI A new label technology for the detection of specific polymerase chain reaction products in a closed tube

L6 ANSWER 74 OF 90 USPATFULL on STN  
 TI Purified thermostable nucleic acid polymerase enzyme from thermophilus africanus

L6 ANSWER 75 OF 90 USPATFULL on STN  
 TI Purified thermostable pyrococcus furiosus DNA polymerase I

L6 ANSWER 76 OF 90 USPATFULL on STN  
 TI Purified thermostable pyrococcus furiosus DNA polymerase I

L6 ANSWER 77 OF 90 USPATFULL on STN  
 TI 5' to 3' exonuclease mutations of thermostable DNA polymerases

L6 ANSWER 78 OF 90 USPATFULL on STN  
 TI Methods of enhancing nucleic acid amplification

L6 ANSWER 79 OF 90 USPATFULL on STN  
 TI Kits for detecting a target nucleic acid with blocking oligonucleotides

L6 ANSWER 80 OF 90 USPATFULL on STN  
 TI Purified thermostable nucleic acid polymerase enzyme from Thermotoga maritima

L6 ANSWER 81 OF 90 USPATFULL on STN  
 TI Methods for reducing non-specific priming in DNA detection

L6 ANSWER 82 OF 90 USPATFULL on STN  
 TI Purified thermostable pyrococcus furiosus DNA polymerase I

L6 ANSWER 83 OF 90 BIOTECHNO COPYRIGHT 2006 Elsevier Science B.V. on STN  
 DUPLICATE  
 TI Exonucleolytic proofreading during replication of repetitive DNA

L6 ANSWER 84 OF 90 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 2  
 TI Long-distance PCR of VNTR at the D17S74 (CMM86) locus

L6 ANSWER 85 OF 90 USPATFULL on STN  
 TI 5' to 3' exonuclease mutations of thermostable DNA polymerases

L6 ANSWER 86 OF 90 USPATFULL on STN  
 TI Mutated thermostable nucleic acid polymerase enzyme from thermotoga  
 maritima

L6 ANSWER 87 OF 90 USPATFULL on STN  
 TI DNA encoding a thermostable nucleic acid polymerase enzyme from  
 thermotoga maritima

L6 ANSWER 88 OF 90 USPATFULL on STN  
 TI Method of using a TAQ DNA polymerase without 5'-3'-exonuclease activity

L6 ANSWER 89 OF 90 BIOTECHNO COPYRIGHT 2006 Elsevier Science B.V. on STN  
 TI Phosphorothioate primers improve the amplification of DNA sequences by  
 DNA polymerases with proofreading activity

L6 ANSWER 90 OF 90 LIFESCI COPYRIGHT 2006 CSA on STN  
 TI Amplimers with 3'-terminal phosphorothioate linkages resist degradation by  
 Vent polymerase and reduce Taq polymerase mispriming

=> d ibib abs 16 10 11 16 28 36 44 48 74 78 83 88 90

L6 ANSWER 10 OF 90 USPATFULL on STN  
 ACCESSION NUMBER: 2006:95217 USPATFULL  
 TITLE: Thermostable enzyme promoting the fidelity of  
 thermostable DNA polymerases-for improvement of nucleic  
 acid synthesis and amplification in vitro  
 INVENTOR(S): Ankenbauer, Waltraud, Penzberg, GERMANY, FEDERAL  
 REPUBLIC OF  
 Laue, Frank, Paehl-Fischen, GERMANY, FEDERAL REPUBLIC  
 OF  
 Sobek, Harald, Penzberg, GERMANY, FEDERAL REPUBLIC OF  
 Greif, Michael, Lenggies, GERMANY, FEDERAL REPUBLIC OF  
 PATENT ASSIGNEE(S): Roche Diagnostics GmbH, Mannheim, GERMANY, FEDERAL  
 REPUBLIC OF (non-U.S. corporation)  
 Roche Molecular Systems Inc., Alameda, CA, UNITED  
 STATES (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 7030220	B1	20060418
	WO 2001023583		20010405
APPLICATION INFO.:	US 2000-856850		20000927 (9)
	WO 2000-EP9423		20000927
			20010919 PCT 371 date

	NUMBER	DATE
PRIORITY INFORMATION:	EP 1999-119268	19990928
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Horlick, Kenneth R.	
ASSISTANT EXAMINER:	Kim, Young J.	
LEGAL REPRESENTATIVE:	Townsend & Townsend & Crew LLC	
NUMBER OF CLAIMS:	4	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	13 Drawing Figure(s); 16 Drawing Page(s)	
LINE COUNT:	1237	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A purified thermostable enzyme is derived from the thermophilic archaeobacterium *Archaeoglobus fulgidus*. The enzyme can be native or recombinant, is stable under PCR conditions and exhibits double strand specific exonuclease activity. It is a 3'-5' exonuclease and cleaves to produce 5'-mononucleotides. Thermostable exonucleases are useful in many recombinant DNA techniques, in combination with a thermostable DNA polymerase like Tag especially for nucleic acid amplification by the polymerase chain reaction (PCR).

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 11 OF 90 USPATFULL on STN

ACCESSION NUMBER: 2005:324263 USPATFULL

TITLE: Purified thermostable *Pyrococcus furiosus* DNA polymerase I

INVENTOR(S): Mathur, Eric J., Solana Beach, CA, UNITED STATES

PATENT ASSIGNEE(S): Stratagene, La Jolla, CA, UNITED STATES (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005282171	A1	20051222
APPLICATION INFO.:	US 2004-795201	A1	20040304 (10)
RELATED APPLN. INFO.:	Division of Ser. No. US 2002-176357, filed on 19 Jun 2002, PENDING Continuation of Ser. No. US 1999-244889, filed on 5 Feb 1999, GRANTED, Pat. No. US 6489150 Continuation of Ser. No. US 1991-803627, filed on 2 Dec 1991, GRANTED, Pat. No. US 5948663 Continuation-in-part of Ser. No. US 1991-776552, filed on 15 Oct 1991, ABANDONED Continuation-in-part of Ser. No. US 1991-657073, filed on 19 Feb 1991, ABANDONED Continuation-in-part of Ser. No. US 1990-620568, filed on 3 Dec 1990, ABANDONED		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, LLP, 901 NEW YORK AVENUE, NW, WASHINGTON, DC, 20001-4413, US		
NUMBER OF CLAIMS:	3		
EXEMPLARY CLAIM:	1-16		
NUMBER OF DRAWINGS:	1 Drawing Page(s)		
LINE COUNT:	1819		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Purified thermostable *Pyrococcus furiosus* DNA polymerase that migrates on a non-denaturing polyacrylamide gel faster than phosphorylase B and Taq polymerase and more slowly than bovine serum albumin and has an estimated molecular weight of 90,000-93,000 daltons when compared with a Taq polymerase standard assigned a molecular weight of 94,000 daltons.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 16 OF 90 USPATFULL on STN

ACCESSION NUMBER: 2005:144205 USPATFULL

TITLE: Compositions and methods for synthesizing cDNA

INVENTOR(S): Sorge, Joseph A., Del Mar, CA, UNITED STATES

Hogrefe, Holly, San Diego, CA, UNITED STATES

Hansen, Connie Jo, San Diego, CA, UNITED STATES

Arezi, Bahram, Carlsbad, CA, UNITED STATES

Mullinax, Rebecca Lynn, San Diego, CA, UNITED STATES

PATENT ASSIGNEE(S): Stratagene California (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005123940	A1	20050609
APPLICATION INFO.:	US 2004-853973	A1	20040526 (10)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2003-435766, filed on 12 May 2003, PENDING Continuation-in-part of Ser. No. US 2002-223650, filed on 19 Aug 2002, PENDING Continuation-in-part of Ser. No. US 2001-896923, filed on 29 Jun 2001, PENDING Continuation-in-part of Ser. No. US 2000-698341, filed on 27 Oct 2000, PENDING

	NUMBER	DATE
PRIORITY INFORMATION:	WO 2000-US29706	20001027
	US 1999-162600P	19991029 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	PALMER & DODGE, LLP, KATHLEEN M. WILLIAMS / STR, 111 HUNTINGTON AVENUE, BOSTON, MA, 02199, US	
NUMBER OF CLAIMS:	35	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	28 Drawing Page(s)	
LINE COUNT:	6014	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to composition, kits and methods comprising a mutant DNA polymerase exhibiting increased reverse transcriptase activity. The invention also relates to methods of generating modified cDNA.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 28 OF 90 USPATFULL on STN

ACCESSION NUMBER: 2004:247230 USPATFULL  
TITLE: Nucleic acid modifying enzymes  
INVENTOR(S): Wang, Yan, San Francisco, CA, UNITED STATES  
Xi, Lei, Foster City, CA, UNITED STATES  
Prosen, Dennis E., Foster City, CA, UNITED STATES  
PATENT ASSIGNEE(S): MJ Bioworks, Inc. (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004191825	A1	20040930
APPLICATION INFO.:	US 2004-821583	A1	20040409 (10)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 2001-870353, filed on 30 May 2001, PENDING Continuation-in-part of Ser. No. US 2000-640958, filed on 16 Aug 2000, GRANTED, Pat. No. US 6627424		

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-207567P	20000526 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	TOWNSEND AND TOWNSEND AND CREW, LLP, TWO EMBARCADERO CENTER, EIGHTH FLOOR, SAN FRANCISCO, CA, 94111-3834	
NUMBER OF CLAIMS:	14	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	3 Drawing Page(s)	
LINE COUNT:	2692	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention provides for an improved generation of novel nucleic acid modifying enzymes. The improvement is the fusion of a sequence-non-specific nucleic-acid-binding domain to the enzyme in a manner that enhances the ability of the enzyme to bind and catalytically modify the nucleic acid.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 36 OF 90 USPATFULL on STN

ACCESSION NUMBER: 2004:94761 USPATFULL  
TITLE: Compositions for DNA amplification, synthesis, and  
mutagenesis  
INVENTOR(S): Hogrefe, Holly Hurlbut, San Diego, CA, UNITED STATES  
Borns, Michael C., Escondido, CA, UNITED STATES  
Muhich, Michael L., Olivenhain, CA, UNITED STATES  
PATENT ASSIGNEE(S): Stratagene (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004072213	A1	20040415
APPLICATION INFO.:	US 2003-456848	A1	20030606 (10)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1999-414295, filed on 6 Oct 1999, ABANDONED		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, LLP, 1300 I STREET, NW, WASHINGTON, DC, 20005		
NUMBER OF CLAIMS:	48		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	6 Drawing Page(s)		
LINE COUNT:	1580		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention provides compositions comprising a thermostable non-proofreading DNA polymerase, a thermostable proofreading DNA polymerase, and a factor that substantially inhibits the incorporation of undesired nucleotides or analogs thereof into a DNA polymer. The compositions may further comprise a buffer that enhances a polymerization reaction involving DNA polymerases. The invention also provides various methods of amplifying, synthesizing, or mutagenizing nucleic acids of interest using these novel compositions. Kits that comprise the compositions are also provided for amplifying, synthesizing, and mutagenizing nucleic acids.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 44 OF 90 USPATFULL on STN

ACCESSION NUMBER: 2003:257690 USPATFULL  
TITLE: High fidelity DNA polymerase compositions and uses therefor  
INVENTOR(S): Hogrefe, Holly, San Diego, CA, UNITED STATES  
Borns, Michael, Escondido, CA, UNITED STATES  
Sorge, Joseph, Wilson, WY, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003180741	A1	20030925
APPLICATION INFO.:	US 2002-208508	A1	20020730 (10)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 2002-79241, filed on 20 Feb 2002, PENDING Continuation-in-part of Ser. No. US 2001-35091, filed on 21 Dec 2001, PENDING		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	PALMER & DODGE, LLP, KATHLEEN M. WILLIAMS / STR, 111 HUNTINGTON AVENUE, BOSTON, MA, 02199		
NUMBER OF CLAIMS:	16		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	100 Drawing Page(s)		
LINE COUNT:	2549		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The subject invention relates to compositions comprising an enzyme mixture which comprises a first enzyme and a second enzyme, where the first enzyme comprises a DNA polymerization activity and the second enzyme comprises an 3'-5' exonuclease activity and a reduced DNA polymerization activity. The invention also relates to the above



compositions in kit format and methods for high fidelity DNA synthesis using the subject compositions of the invention.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 48 OF 90 USPATFULL on STN

ACCESSION NUMBER: 2003:231973 USPATFULL  
TITLE: Nucleic acid modifying enzymes  
INVENTOR(S): Wang, Yan, San Francisco, CA, UNITED STATES  
Xi, Lei, Foster City, CA, UNITED STATES  
Prosen, Dennis E., Foster City, CA, UNITED STATES  
PATENT ASSIGNEE(S): MJ Bioworks Incorporated, South San Francisco, CA,  
94080 (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003162173	A1	20030828
APPLICATION INFO.:	US 2001-870353	A1	20010530 (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 2000-640958, filed on 16 Aug 2000, PENDING		

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-207567P	20000526 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	TOWNSEND AND TOWNSEND AND CREW, LLP, TWO EMBARCADERO CENTER, EIGHTH FLOOR, SAN FRANCISCO, CA, 94111-3834	
NUMBER OF CLAIMS:	14	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	3 Drawing Page(s)	
LINE COUNT:	2188	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention provides for an improved generation of novel nucleic acid modifying enzymes. The improvement is the fusion of a sequence-non-specific nucleic-acid-binding domain to the enzyme in a manner that enhances the ability of the enzyme to bind and catalytically modify the nucleic acid.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 74 OF 90 USPATFULL on STN

ACCESSION NUMBER: 1999:128415 USPATFULL  
TITLE: Purified thermostable nucleic acid polymerase enzyme  
from thermosipho africanus  
INVENTOR(S): Gelfand, David H., Oakland, CA, United States  
Greenfield, I. Lawrence, Pleasant Hill, CA, United States  
Reichert, Fred L., Oakland, CA, United States  
PATENT ASSIGNEE(S): Roche Molecular Systems, Inc., Pleasanton, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5968799		19991019
	WO 9206202		19920416
APPLICATION INFO.:	US 1993-977428		19930209 (7)
	WO 1991-US7076		19910926
			19930209 PCT 371 date
			19930209 PCT 102(e) date
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1990-590490, filed on 28 Sep 1990, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Hendricks, Keith D.		

LEGAL REPRESENTATIVE: Petry, Douglas A.  
NUMBER OF CLAIMS: 2  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 3 Drawing Figure(s); 3 Drawing Page(s)  
LINE COUNT: 2689

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A purified thermostable enzyme is derived from the eubacterium *Thermosipho africanus*. The enzyme has DNA polymerase, activity reverse transcriptase activity, and optionally 5'→3' and/or 3'→5' exonuclease activity. The enzyme can be native or recombinant, and may be used with primers and nucleoside triphosphates in a temperature-cycling chain reaction where at least one nucleic acid sequence is amplified in quantity from an existing sequence.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 78 OF 90 USPATFULL on STN

ACCESSION NUMBER: 1998:88674 USPATFULL  
TITLE: Methods of enhancing nucleic acid amplification  
INVENTOR(S): Ryder, Thomas B., Escondido, CA, United States  
Billyard, Elizabeth R., San Diego, CA, United States  
Dattagupta, Nanibhushan, San Diego, CA, United States  
PATENT ASSIGNEE(S): Gen-Probe Incorporated, San Diego, CA, United States  
(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5786183		19980728
APPLICATION INFO.:	US 1995-421471		19950414 (8)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1993-97262, filed on 23 Jul 1993, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Campbell, Eggerton A.		
LEGAL REPRESENTATIVE:	Lyon & Lyon LLP		
NUMBER OF CLAIMS:	59		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	4 Drawing Figure(s); 4 Drawing Page(s)		
LINE COUNT:	1503		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method for amplification of a nucleic acid strand in a test sample. The method includes contacting the nucleic acid strand from the test sample simultaneously with at least three oligonucleotide primers. At least one primer is a promoter-primer, and at least one other primer is complementary to the nucleic acid strand, and one other primer is complementary to a strand complementary to the nucleic acid strand. The method further includes contacting the nucleic acid strand and primers with one or more proteins having RNA-directed and/or DNA-directed DNA polymerase activities, an RNA polymerase activity, and an RNase H activity under primer-extension conditions to allow amplification of a target region in the nucleic acid strand at essentially constant temperature.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 83 OF 90 BIOTECHNO COPYRIGHT 2006 Elsevier Science B.V. on STN  
DUPLICATE

ACCESSION NUMBER: 1996:26034592 BIOTECHNO  
TITLE: Exonucleolytic proofreading during replication of repetitive DNA  
AUTHOR: Kroutil L.C.; Register K.; Bebenek K.; Kunkel T.A.  
CORPORATE SOURCE: Laboratory Molecular Genetics, Natl. Inst. of Env'tl. Hlth. Sciences, Research Triangle Park, NC 27709, United States.  
SOURCE: Biochemistry, (1996), 35/3 (1046-1053)

DOCUMENT TYPE: Journal; Article  
COUNTRY: United States  
LANGUAGE: English  
SUMMARY LANGUAGE: English

AN 1996:26034592 BIOTECHNO

AB We are attempting to understand the processes required to accurately replicate the repetitive DNA sequences whose instability is associated with several human diseases. Here we test the hypothesis that the contribution of exonucleolytic proofreading to frameshift fidelity during replication of repetitive DNA sequences diminishes as the number of repeats in the sequence increases. The error rates of proofreading-proficient T7, T4, and *Pyrococcus furiosus* DNA polymerases are compared to their exonuclease-deficient derivatives, for +1 and -1 base errors in homopolymeric repeat sequences of three to eight base pairs. All three exonuclease-deficient polymerases produce frameshift errors during synthesis at rates that increase as a function of run length, suggesting the involvement of misaligned intermediates. Their wild-type counterparts are all much more accurate, suggesting that the majority of the intermediates are corrected by proofreading. However, the contribution of the exonuclease to fidelity decreases substantially as the length of tile homopolymeric run increases. For example, the exonuclease enhances the frameshift fidelity of T7 DNA polymerase in a run of three A .midldot. T base pairs by 160-fold, similar to its contribution to base substitution fidelity. However, in a run of eight consecutive A .midldot. T base pairs, the exonuclease only enhances frameshift fidelity by 7-fold. A similar pattern was observed with T4 and Pfu DNA polymerases. Thus, both polymerase selectivity and exonucleolytic proofreading efficiency are diminished during replication of repetitive sequences. This may place an increased relative burden on post-replication repair processes to reduce rates of addition and deletion mutations in organisms whose genome contains abundant simple repeat DNA sequences.

L6 ANSWER 88 OF 90 USPATFULL on STN

ACCESSION NUMBER: 92:34052 USPATFULL

TITLE: Method of using a TAQ DNA polymerase without 5'-3'-exonuclease activity

INVENTOR(S): Burke, Thomas J., Madison, WI, United States  
Thompson, David V., Monona, WI, United States  
Spurgeon, Sandra L., Madison, WI, United States

PATENT ASSIGNEE(S): Promega Corporation, Madison, WI, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5108892		19920428
APPLICATION INFO.:	US 1989-389745		19890803 (7)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Wax, Robert A.		
ASSISTANT EXAMINER:	Zitomer, Stephanie W.		
NUMBER OF CLAIMS:	46		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	3 Drawing Figure(s); 3 Drawing Page(s)		
LINE COUNT:	1355		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention is directed to a modified Taq DNA polymerase and methods for its use.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 90 OF 90 LIFESCI COPYRIGHT 2006 CSA on STN

ACCESSION NUMBER: 95:3105 LIFESCI  
 TITLE: Amplimers with 3'-terminal phosphorothioate linkages resist degradation by Vent polymerase and reduce Taq polymerase mispriming  
 AUTHOR: De Noronha, C.M.C.; Mullins, J.I.  
 CORPORATE SOURCE: Dep. Cancer Biol., Harvard Sch. Pub. Health, Boston, MA 02115, USA  
 SOURCE: PCR METHODS APPLIC., (1992) vol. 2, no. 2, pp. 131-136.  
 DOCUMENT TYPE: Journal  
 FILE SEGMENT: N  
 LANGUAGE: English  
 SUMMARY LANGUAGE: English

AB The 3' arrow right 5' **exonuclease** activity of Vent, a thermostable **polymerase** from *Thermococcus litoralis*, **enhances DNA** replication fidelity but also diverts PCR primers (amplimers) from targeted amplification by degrading their 3' termini. We demonstrate that amplimers with a 3-base 3'-terminal mismatch can be efficiently truncated by Vent to prime **DNA** polymerizations that compete with the specific amplification reaction. However, amplimers with phosphorothioate bonds joining their 3'-terminal residues are resistant to degradation and demonstrate greatly **enhanced** priming specificity. Slight destabilization of base-pairing by phosphorothioate bond-linked residues also diminishes extension of mispaired 3' amplimer termini in **Taq polymerase**-mediated amplifications.

=> s l4 (s) (gp32? or gp?)

L7 26 L4 (S) (GP32? OR GP?)

=> dup rem l7

PROCESSING COMPLETED FOR L7

L8 26 DUP REM L7 (0 DUPLICATES REMOVED)

=> d ti l8 1-26

L8 ANSWER 1 OF 26 USPATFULL on STN

TI Methods and apparatus for characterizing polynucleotides

L8 ANSWER 2 OF 26 USPATFULL on STN

TI Nucleic acid encoding *Bacillus stearothermophilus* delta prime polymerase subunit

L8 ANSWER 3 OF 26 USPATFULL on STN

TI Mutant DNA polymerases and uses thereof

L8 ANSWER 4 OF 26 USPATFULL on STN

TI Nucleic acid encoding *Bacillus stearothermophilus* polc polymerase subunit

L8 ANSWER 5 OF 26 USPATFULL on STN

TI Enzymes derived from thermophilic organisms that function as a chromosomal replicase, preparation and use thereof

L8 ANSWER 6 OF 26 USPATFULL on STN

TI Exonuclease-mediated nucleic acid reassembly in directed evolution

L8 ANSWER 7 OF 26 USPATFULL on STN

TI EXONUCLEASE-MEDIATED NUCLEIC ACID REASSEMBLY IN DIRECTED EVOLUTION

L8 ANSWER 8 OF 26 USPATFULL on STN

TI *Chlamydia pneumoniae* polynucleotides and uses thereof

L8 ANSWER 9 OF 26 USPATFULL on STN

TI Nucleic acid and amino acid sequences relating to *Streptococcus*

pneumoniae for diagnostics and therapeutics

L8 ANSWER 10 OF 26 USPATFULL on STN  
TI Antisense modulation of orphan G-protein coupled receptor GPRC5B expression

L8 ANSWER 11 OF 26 USPATFULL on STN  
TI Cloned DNA polymerases from Thermotoga and mutants thereof

L8 ANSWER 12 OF 26 USPATFULL on STN  
TI Nucleic acid encoding 5'-3' exonuclease of bacteriophage RM 378

L8 ANSWER 13 OF 26 USPATFULL on STN  
TI Nucleic acid encoding 3'-5' exonuclease of bacteriophage RM 378

L8 ANSWER 14 OF 26 USPATFULL on STN  
TI Nucleic acid encoding RNA ligase of bacteriophage RM 378

L8 ANSWER 15 OF 26 USPATFULL on STN  
TI Nucleic acid encoding DNA polymerase of bacteriophage RM 378

L8 ANSWER 16 OF 26 USPATFULL on STN  
TI RNA ligase of bacteriophage RM 378

L8 ANSWER 17 OF 26 USPATFULL on STN  
TI Nucleic acid encoding DNA helicase of bacteriophage RM 378

L8 ANSWER 18 OF 26 USPATFULL on STN  
TI Exonuclease-mediated nucleic acid reassembly in directed evolution

L8 ANSWER 19 OF 26 USPATFULL on STN  
TI CLONED DNA POLYMERASES FROM THERMOTOGA MARITIMA AND MUTANTS THEREOF

L8 ANSWER 20 OF 26 USPATFULL on STN  
TI Staphylococcus aureus polynucleotides and sequences

L8 ANSWER 21 OF 26 USPATFULL on STN  
TI Chlamydia pneumoniae polynucleotides and uses thereof

L8 ANSWER 22 OF 26 USPATFULL on STN  
TI Polymerases for analyzing or typing polymorphic nucleic acid fragments and uses thereof

L8 ANSWER 23 OF 26 USPATFULL on STN  
TI Bacteriophage RM 378 of a thermophilic host organism

L8 ANSWER 24 OF 26 USPATFULL on STN  
TI Exonuclease-mediated nucleic acid reassembly in directed evolution

L8 ANSWER 25 OF 26 USPATFULL on STN  
TI Detectably labeled, dual conformation oligonucleotide probes, assays and kits

L8 ANSWER 26 OF 26 USPATFULL on STN  
TI Detectably labeled dual conformation oligonucleotide probes, assays and kits

=> d 18 ibib abs

L8 ANSWER 1 OF 26 USPATFULL on STN  
ACCESSION NUMBER: 2006:74125 USPATFULL  
TITLE: Methods and apparatus for characterizing polynucleotides  
INVENTOR(S): Akeson, Mark, Santa Cruz, CA, UNITED STATES

Branton, Daniel, Lexington, MA, UNITED STATES  
Deamer, David W., Santa Cruz, CA, UNITED STATES  
Sampson, Jeffrey R., San Francisco, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2006063171	A1	20060323
APPLICATION INFO.:	US 2005-88140	A1	20050323 (11)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2004-555665P	20040323 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	CLARK & ELBING LLP, 101 FEDERAL STREET, BOSTON, MA, 02110, US	
NUMBER OF CLAIMS:	20	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	14 Drawing Page(s)	
LINE COUNT:	1239	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Systems and methods for analysis of polymers, e.g., polynucleotides, are provided. The systems are capable of analyzing a polymer at a specified rate. One such analysis system includes a structure having a nanopore aperture and a molecular motor, e.g., a polymerase, adjacent the nanopore aperture.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> d 18 1-26 ibib abs

L8 ANSWER 1 OF 26 USPATFULL on STN  
ACCESSION NUMBER: 2006:74125 USPATFULL  
TITLE: Methods and apparatus for characterizing polynucleotides  
INVENTOR(S): Akeson, Mark, Santa Cruz, CA, UNITED STATES  
Branton, Daniel, Lexington, MA, UNITED STATES  
Deamer, David W., Santa Cruz, CA, UNITED STATES  
Sampson, Jeffrey R., San Francisco, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2006063171	A1	20060323
APPLICATION INFO.:	US 2005-88140	A1	20050323 (11)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2004-555665P	20040323 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	CLARK & ELBING LLP, 101 FEDERAL STREET, BOSTON, MA, 02110, US	
NUMBER OF CLAIMS:	20	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	14 Drawing Page(s)	
LINE COUNT:	1239	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Systems and methods for analysis of polymers, e.g., polynucleotides, are provided. The systems are capable of analyzing a polymer at a specified rate. One such analysis system includes a structure having a nanopore aperture and a molecular motor, e.g., a polymerase, adjacent the nanopore aperture.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 2 OF 26 USPATFULL on STN

ACCESSION NUMBER: 2005:177219 USPATFULL  
TITLE: Nucleic acid encoding Bacillus stearotherophilus delta  
prime polymerase subunit  
INVENTOR(S): O'Donnell, Michael E., Hastings-on-Hudson, NY, UNITED  
STATES  
Yuzhakov, Alexander, Malden, MA, UNITED STATES  
Yurieva, Olga, New York, NY, UNITED STATES  
Jeruzalmi, David, Cambridge, MA, UNITED STATES  
Bruck, Irina, New York, NY, UNITED STATES  
Kuriyan, John, Berkeley, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005153299	A1	20050714
APPLICATION INFO.:	US 2003-671106	A1	20030925 (10)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 2000-716964, filed on 21 Nov 2000, GRANTED, Pat. No. US 6897053 Continuation-in-part of Ser. No. US 2000-642218, filed on 18 Aug 2000, PENDING Continuation of Ser. No. US 1998-57416, filed on 8 Apr 1998, ABANDONED		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-43202P	19970408 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	Nixon Peabody LLP, Clinton Square, P.O. Box 31051, Rochester, NY, 14603-1051, US	
NUMBER OF CLAIMS:	9	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	83 Drawing Page(s)	
LINE COUNT:	9358	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to an isolated DNA molecule from a thermophilic bacterium which encodes a DNA polymerase III-type enzyme subunit. Also encompassed by the present invention are host cells and expression system including the heterologous DNA molecule of the present invention, as well as isolated replication enzyme subunits encoded by such DNA molecules. Also disclosed is a method of producing a recombinant thermostable DNA polymerase III-type enzyme, or subunit thereof, from a thermophilic bacterium, which is carried out by transforming a host cell with at least one heterologous DNA molecule of the present invention under conditions suitable for expression of the DNA polymerase III-type enzyme, or subunit thereof, and then isolating the DNA polymerase III-type enzyme, or subunit thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 3 OF 26 USPATFULL on STN

ACCESSION NUMBER: 2005:131177 USPATFULL  
TITLE: Mutant DNA polymerases and uses thereof  
INVENTOR(S): Chatterjee, Deb K., North Potomac, MD, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005112637	A1	20050526
APPLICATION INFO.:	US 2004-947352	A1	20040923 (10)
RELATED APPLN. INFO.:	Division of Ser. No. US 2000-558421, filed on 26 Apr 2000, PENDING Continuation of Ser. No. US 1995-576759, filed on 21 Dec 1995, ABANDONED Continuation of Ser. No. US 1995-537397, filed on 2 Oct 1995, ABANDONED Continuation-in-part of Ser. No. US 1995-525057, filed on 8 Sep 1995, ABANDONED		

DOCUMENT TYPE: Utility  
FILE SEGMENT: APPLICATION  
LEGAL REPRESENTATIVE: STERNE, KESSLER, GOLDSTEIN & FOX PLLC, 1100 NEW YORK  
AVENUE, N.W., WASHINGTON, DC, 20005, US  
NUMBER OF CLAIMS: 28  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 9 Drawing Page(s)  
LINE COUNT: 1367

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to mutant DNA polymerases which incorporate dideoxynucleotides with about the same efficiency as deoxynucleotides. The present invention also related to mutant DNA polymerases which also have substantially reduced 5'-to-3' exonuclease activity or 3'-to-5' exonuclease activity. The invention also relates to DNA molecules coding for the mutant DNA polymerases, and hosts containing the DNA molecules.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 4 OF 26 USPATFULL on STN

ACCESSION NUMBER: 2005:117653 USPATFULL  
TITLE: Nucleic acid encoding Bacillus stearothermophilus polc polymerase subunit  
INVENTOR(S): O'Donnell, Michael E., Hastings-on-Hudson, NY, UNITED STATES  
Yuzhakov, Alexander, Malden, MA, UNITED STATES  
Yurieva, Olga, New York, NY, UNITED STATES  
Jeruzalmi, David, Cambridge, MA, UNITED STATES  
Bruck, Irina, New York, NY, UNITED STATES  
Kuriyan, John, Berkeley, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005100920	A1	20050512
APPLICATION INFO.:	US 2003-671412	A1	20030925 (10)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 2000-716964, filed on 21 Nov 2000, PENDING Continuation-in-part of Ser. No. US 2000-642218, filed on 18 Aug 2000, PENDING Continuation of Ser. No. US 1998-57416, filed on 8 Apr 1998, ABANDONED		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-43202P	19970408 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	Nixon Peabody LLP, Clinton Square, P.O. Box 31051, Rochester, NY, 14603-1051, US	
NUMBER OF CLAIMS:	9	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	82 Drawing Page(s)	
LINE COUNT:	9351	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to an isolated DNA molecule from a thermophilic bacterium which encodes a DNA polymerase III-type enzyme subunit. Also encompassed by the present invention are host cells and expression system including the heterologous DNA molecule of the present invention, as well as isolated replication enzyme subunits encoded by such DNA molecules. Also disclosed is a method of producing a recombinant thermostable DNA polymerase III-type enzyme, or subunit thereof, from a thermophilic bacterium, which is carried out by transforming a host cell with at least one heterologous DNA molecule of the present invention under conditions suitable for expression of the DNA polymerase III-type enzyme, or subunit thereof, and then isolating the DNA polymerase III-type enzyme, or subunit thereof.



CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 5 OF 26 USPATFULL on STN

ACCESSION NUMBER: 2005:126986 USPATFULL

TITLE: Enzymes derived from thermophilic organisms that function as a chromosomal replicase, preparation and use thereof

INVENTOR(S): O'Donnell, Michael E., Hastings-on-Hudson, NY, UNITED STATES

Yurieva, Olga, New York, NY, UNITED STATES

PATENT ASSIGNEE(S): Rockefeller University, New York, NY, UNITED STATES (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6897053	B1	20050524
APPLICATION INFO.:	US 2000-716964		20001121 (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 2000-642218, filed on 18 Aug 2000, PENDING Continuation of Ser. No. US 1998-57416, filed on 8 Apr 1998, ABANDONED		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-43202P	19970408 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Hutson, Richard	
LEGAL REPRESENTATIVE:	Nixon Peabody LLP	
NUMBER OF CLAIMS:	6	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	124 Drawing Figure(s); 82 Drawing Page(s)	
LINE COUNT:	9308	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to an isolated DNA molecule from a thermophilic bacterium which encodes a DNA polymerase III-type enzyme subunit. Also encompassed by the present invention are host cells and expression system including the heterologous DNA molecule of the present invention, as well as isolated replication enzyme subunits encoded by such DNA molecules. Also disclosed is a method of producing a recombinant thermostable DNA polymerase III-type enzyme, or subunit thereof, from a thermophilic bacterium, which is carried out by transforming a host cell with at least one heterologous DNA molecule of the present invention under conditions suitable for expression of the DNA polymerase III-type enzyme, or subunit thereof, and then isolating the DNA polymerase III-type enzyme, or subunit thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 6 OF 26 USPATFULL on STN

ACCESSION NUMBER: 2004:314472 USPATFULL

TITLE: Exonuclease-mediated nucleic acid reassembly in directed evolution

INVENTOR(S): Short, Jay M., Rancho Santa Fe, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004248143	A1	20041209
APPLICATION INFO.:	US 2003-631544	A1	20030730 (10)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 2002-108077, filed on 26 Mar 2002, GRANTED, Pat. No. US 6635449 Continuation of Ser. No. US 2000-535754, filed on 27 Mar 2000, GRANTED, Pat. No. US 6361974 Continuation-in-part of Ser. No. US 2000-522289, filed on 9 Mar 2000, GRANTED, Pat. No. US 6358709 Continuation-in-part of Ser. No. US		

2000-498557, filed on 4 Feb 2000, GRANTED, Pat. No. US  
 6713279 Continuation-in-part of Ser. No. US  
 2000-495052, filed on 31 Jan 2000, GRANTED, Pat. No. US  
 6479258 Continuation-in-part of Ser. No. US  
 1999-332835, filed on 14 Jun 1999, GRANTED, Pat. No. US  
 6537776 Continuation-in-part of Ser. No. US  
 1999-276860, filed on 26 Mar 1999, GRANTED, Pat. No. US  
 6352842 Continuation-in-part of Ser. No. US  
 1999-267118, filed on 9 Mar 1999, GRANTED, Pat. No. US  
 6238884 Continuation-in-part of Ser. No. US  
 1999-246178, filed on 4 Feb 1999, GRANTED, Pat. No. US  
 6171820 Continuation-in-part of Ser. No. US  
 1998-185373, filed on 3 Nov 1998, GRANTED, Pat. No. US  
 6335179 Continuation of Ser. No. US 1996-760489, filed  
 on 5 Dec 1996, GRANTED, Pat. No. US 5830696  
 Continuation-in-part of Ser. No. US 1997-962504, filed  
 on 31 Oct 1997, GRANTED, Pat. No. US 6489145  
 Continuation-in-part of Ser. No. US 1996-677112, filed  
 on 9 Jul 1996, GRANTED, Pat. No. US 5965408  
 Continuation-in-part of Ser. No. US 1996-651568, filed  
 on 22 May 1996, GRANTED, Pat. No. US 5939250

	NUMBER	DATE
PRIORITY INFORMATION:	US 1995-8311P	19951207 (60)
	US 1995-8316P	19951207 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	DIVERSA CORPORATION, 4955 DIRECTORS PLACE, SAN DIEGO, CA, 92121	
NUMBER OF CLAIMS:	40	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	6 Drawing Page(s)	
LINE COUNT:	9060	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention provides methods of obtaining novel polynucleotides and encoded polypeptides by the use of non-stochastic methods of directed evolution (DirectEvolution.TM.). A particular advantage of exonuclease-mediated reassembly methods is the ability to reassemble nucleic acid strands that would otherwise be problematic to chimerize. Exonuclease-mediated reassembly methods can be used in combination with other mutagenesis methods provided herein. These methods include non-stochastic polynucleotide site-saturation mutagenesis (Gene Site Saturation Mutagenesis.TM.) and non-stochastic polynucleotide reassembly (GeneReassembly.TM.). This invention provides methods of obtaining novel enzymes that have optimized physical &/or biological properties. Through use of the claimed methods, genetic vaccines, enzymes, small molecules, and other desirable molecules can be evolved towards desirable properties. For example, vaccine vectors can be obtained that exhibit increased efficacy for use as genetic vaccines. Vectors obtained by using the methods can have, for example, enhanced antigen expression, increased uptake into a cell, increased stability in a cell, ability to tailor an immune response, and the like. Furthermore, this invention provides methods of obtaining a variety of novel biologically active molecules, in the fields of antibiotics, pharmacotherapeutics, and transgenic traits.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 7 OF 26 USPATFULL on STN

ACCESSION NUMBER: 2004:196772 USPATFULL

TITLE: EXONUCLEASE-MEDIATED NUCLEIC ACID REASSEMBLY IN  
DIRECTED EVOLUTION

INVENTOR(S): Short, Jay M., Rancho Santa Fe, CA, UNITED STATES  
Djavakhishvili, Tsotne David, San Diego, CA, UNITED

## STATES

Frey, Gerhard Johann, San Diego, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004152077	A1	20040805
	US 6939689	B2	20050906
APPLICATION INFO.:	US 2001-29221	A1	20011221 (10)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 2000-535754, filed on 27 Mar 2000, GRANTED, Pat. No. US 6361974		
	Continuation-in-part of Ser. No. US 2000-522289, filed on 9 Mar 2000, GRANTED, Pat. No. US 6358709		
	Continuation-in-part of Ser. No. US 2000-498557, filed on 4 Feb 2000, GRANTED, Pat. No. US 6713279		
	Continuation-in-part of Ser. No. US 2000-495052, filed on 31 Jan 2000, GRANTED, Pat. No. US 6479258		
	Continuation-in-part of Ser. No. US 1999-332835, filed on 14 Jun 1999, GRANTED, Pat. No. US 6537776		
	Continuation-in-part of Ser. No. US 1999-276860, filed on 26 Mar 1999, GRANTED, Pat. No. US 6352842		
	Continuation-in-part of Ser. No. US 1999-267118, filed on 9 Mar 1999, GRANTED, Pat. No. US 6238884		
	Continuation-in-part of Ser. No. US 1999-246178, filed on 4 Feb 1999, GRANTED, Pat. No. US 6171820		
	Continuation-in-part of Ser. No. US 1998-185373, filed on 3 Nov 1998, GRANTED, Pat. No. US 6335179		
	Continuation of Ser. No. US 1996-760489, filed on 5 Dec 1996, GRANTED, Pat. No. US 5830696		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1995-8311P	19951207 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	DIVERSA CORPORATION, 4955 DIRECTORS PLACE, SAN DIEGO, CA, 92121	
NUMBER OF CLAIMS:	17	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	6 Drawing Page(s)	
LINE COUNT:	8934	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention provides methods of obtaining novel polynucleotides and encoded polypeptides by the use of non-stochastic methods of directed evolution (DirectEvolution.TM.). A particular advantage of exonuclease-mediated reassembly methods is the ability to reassemble nucleic acid strands that would otherwise be problematic to chimerize. Exonuclease-mediated reassembly methods can be used in combination with other mutagenesis methods provided herein. These methods include non-stochastic polynucleotide site-saturation mutagenesis (Gene Site Saturation Mutagenesis.TM.) and non-stochastic polynucleotide reassembly (GeneReassembly.TM.). This invention provides methods of obtaining novel enzymes that have optimized physical &/or biological properties. Through use of the claimed methods, genetic vaccines, enzymes, small molecules, and other desirable molecules can be evolved towards desirable properties. For example, vaccine vectors can be obtained that exhibit increased efficacy for use as genetic vaccines. Vectors obtained by using the methods can have, for example, enhanced antigen expression, increased uptake into a cell, increased stability in a cell, ability to tailor an immune response, and the like. Furthermore, this invention provides methods of obtaining a variety of novel biologically active molecules, in the fields of antibiotics, pharmacotherapeutics, and transgenic traits.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 8 OF 26 USPATFULL on STN

ACCESSION NUMBER: 2004:7978 USPATFULL  
TITLE: Chlamydia pneumoniae polynucleotides and uses thereof  
INVENTOR(S): Griffais, Remy, Montrouge, FRANCE  
Hoiseth, Susan K., Fairport, NY, UNITED STATES  
Zagursky, Robert John, Victor, NY, UNITED STATES  
Metcalf, Benjamin J., Rochester, NY, UNITED STATES  
Peek, Joel A., Pittsford, NY, UNITED STATES  
Sankaran, Banumathi, Penfield, NY, UNITED STATES  
Fletcher, Leah Diane, Geneseo, NY, UNITED STATES  
PATENT ASSIGNEE(S): Genset S.A., Paris, FRANCE (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004006218	A1	20040108
APPLICATION INFO.:	US 2002-289762	A1	20021107 (10)
RELATED APPLN. INFO.:	Division of Ser. No. US 1998-198452, filed on 23 Nov 1998, GRANTED, Pat. No. US 6559294		

	NUMBER	DATE
PRIORITY INFORMATION:	FR 1997-14673	19971121
	US 1998-107078P	19981104 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	Frank C. Eisenschenk, Ph.D., Saliwanchik, Lloyd & Saliwanchik,, A Professional Association, 2421 N.W. 41st Street, Suite A-1, Gainesville, FL, 32606	
NUMBER OF CLAIMS:	26	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	3 Drawing Page(s)	
LINE COUNT:	13481	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The subject of the invention is the genomic sequence and the nucleotide sequences encoding polypeptides of Chlamydia pneumoniae, such as cellular envelope polypeptides, which are secreted or specific, or which are involved in metabolism, in the replication process or in virulence, polypeptides encoded by such sequences, as well as vectors including the said sequences and cells or animals transformed with these vectors. The invention also relates to transcriptional gene products of the Chlamydia pneumoniae genome, such as, for example, antisense and ribozyme molecules, which can be used to control growth of the microorganism. The invention also relates to methods of detecting these nucleic acids or polypeptides and kits for diagnosing Chlamydia pneumoniae infection. The invention also relates to a method of selecting compounds capable of modulating bacterial infection and a method for the biosynthesis or biodegradation of molecules of interest using the said nucleotide sequences or the said polypeptides. The invention finally comprises, pharmaceutical, in particular vaccine, compositions for the prevention and/or treatment of bacterial, in particular Chlamydia pneumoniae, infections.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 9 OF 26 USPATFULL on STN

ACCESSION NUMBER: 2004:250212 USPATFULL  
TITLE: Nucleic acid and amino acid sequences relating to Streptococcus pneumoniae for diagnostics and therapeutics  
INVENTOR(S): Doucette-Stamm, Lynn A., Framingham, MA, United States  
Bush, David, Somerville, MA, United States  
PATENT ASSIGNEE(S): Genome Therapeutics Corporation, Waltham, MA, United States (U.S. corporation)

NUMBER	KIND	DATE
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PATENT INFORMATION: US 6800744 B1 20041005  
APPLICATION INFO.: US 1998-107433 19980630 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-85131P	19980512 (60)
	US 1997-51553P	19970702 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Brusca, John S.	
ASSISTANT EXAMINER:	Zhou, Shubo "Joe "	
LEGAL REPRESENTATIVE:	Genome Therapeutics Corporation	
NUMBER OF CLAIMS:	14	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	0 Drawing Figure(s); 0 Drawing Page(s)	
LINE COUNT:	11545	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention provides isolated polypeptide and nucleic acid sequences derived from *Streptococcus pneumonia* that are useful in diagnosis and therapy of pathological conditions; antibodies against the polypeptides; and methods for the production of the polypeptides. The invention also provides methods for the detection, prevention and treatment of pathological conditions resulting from bacterial infection.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 10 OF 26 USPATFULL on STN

ACCESSION NUMBER: 2003:335036 USPATFULL  
TITLE: Antisense modulation of orphan G-protein coupled receptor GPRC5B expression  
INVENTOR(S): Monia, Brett P., Encinitas, CA, UNITED STATES  
Dobie, Kenneth W., Del Mar, CA, UNITED STATES  
PATENT ASSIGNEE(S): Isis Pharmaceuticals Inc. (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003235912	A1	20031225
APPLICATION INFO.:	US 2002-177798	A1	20020619 (10)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	FENWICK & WEST LLP, 801 CALIFORNIA STREET, MOUNTAIN VIEW, CA, 94014		
NUMBER OF CLAIMS:	20		
EXEMPLARY CLAIM:	1		
LINE COUNT:	3689		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Antisense compounds, compositions and methods are provided for modulating the expression of orphan G-protein coupled receptor GPRC5B. The compositions comprise antisense compounds, particularly antisense oligonucleotides, targeted to nucleic acids encoding orphan G-protein coupled receptor GPRC5B. Methods of using these compounds for modulation of orphan G-protein coupled receptor GPRC5B expression and for treatment of diseases associated with expression of orphan G-protein coupled receptor GPRC5B are provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 11 OF 26 USPATFULL on STN

ACCESSION NUMBER: 2003:232001 USPATFULL  
TITLE: Cloned DNA polymerases from *Thermotoga* and mutants thereof  
INVENTOR(S): Chatterjee, Deb K., North Potomac, MD, UNITED STATES  
Hughes, A. John, JR., Germantown, MD, UNITED STATES  
PATENT ASSIGNEE(S): Invitrogen Corporation (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003162201	A1	20030828
APPLICATION INFO.:	US 2002-285696	A1	20021101 (10)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1999-238471, filed on 28 Jan 1999, GRANTED, Pat. No. US 6506560 Division of Ser. No. US 1996-706706, filed on 6 Sep 1996, GRANTED, Pat. No. US 6015668 Continuation-in-part of Ser. No. US 1996-689818, filed on 14 Aug 1996, ABANDONED Continuation-in-part of Ser. No. US 1995-537400, filed on 2 Oct 1995, GRANTED, Pat. No. US 5939301 Continuation-in-part of Ser. No. US 1995-370190, filed on 9 Jan 1995, GRANTED, Pat. No. US 5912155 Continuation-in-part of Ser. No. US 1994-316423, filed on 30 Sep 1994, ABANDONED Continuation of Ser. No. US 1995-537397, filed on 2 Oct 1995, ABANDONED Continuation-in-part of Ser. No. US 1995-525057, filed on 8 Sep 1995, ABANDONED		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	STERNE, KESSLER, GOLDSTEIN & FOX PLLC, 1100 NEW YORK AVENUE, N.W., WASHINGTON, DC, 20005		
NUMBER OF CLAIMS:	39		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	30 Drawing Page(s)		
LINE COUNT:	2684		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to a substantially pure thermostable DNA polymerase from Thermotoga (Tne and Tma) and mutants thereof. The Tne DNA polymerase has a molecular weight of about 100 kilodaltons and is more thermostable than Taq DNA polymerase. The mutant DNA polymerase has at least one mutation selected from the group consisting of (1) a first mutation that substantially reduces or eliminates 3'→5' exonuclease activity of said DNA polymerase; (2) a second mutation that substantially reduces or eliminates 5'→3' exonuclease activity of said DNA polymerase; (3) a third mutation in the O helix of said DNA polymerase resulting in said DNA polymerase becoming non-discriminating against dideoxynucleotides. The present invention also relates to the cloning and expression of the wild type or mutant DNA polymerases in E. coli, to DNA molecules containing the cloned gene, and to host cells which express said genes. The DNA polymerases of the invention may be used in well-known DNA sequencing and amplification reactions.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 12 OF 26 USPATFULL on STN

ACCESSION NUMBER: 2003:187937 USPATFULL  
 TITLE: Nucleic acid encoding 5'-3' exonuclease of bacteriophage RM 378  
 INVENTOR(S): Hjorleifsdottir, Sigridur, Reykjavik, ICELAND  
 Hreggvidsson, Gudmundur O., Reykjavik, ICELAND  
 Fridjonsson, Olafur H., Reykjavik, ICELAND  
 Aevarsson, Arnthor, Hveragerdi, ICELAND  
 Kristjansson, Jakob K., Reykjavik, ICELAND  
 PATENT ASSIGNEE(S): Prokaria ltd., Reykjavik, ICELAND (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003129727	A1	20030710
APPLICATION INFO.:	US 2002-270846	A1	20021011 (10)
RELATED APPLN. INFO.:	Division of Ser. No. US 2000-585858, filed on 1 Jun 2000, GRANTED, Pat. No. US 6492161		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1999-137120P	19990602 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	HAMILTON, BROOK, SMITH & REYNOLDS, P.C., 530 VIRGINIA ROAD, P.O. BOX 9133, CONCORD, MA, 01742-9133	
NUMBER OF CLAIMS:	10	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	83 Drawing Page(s)	
LINE COUNT:	8993	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		
AB	A novel bacteriophage RM 378 of Rhodothermus marinus, the nucleic acids of its genome, nucleic acids comprising nucleotide sequences of open reading frames (ORFs) of its genome, and polypeptides encoded by the nucleic acids, are described.	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 13 OF 26 USPATFULL on STN

ACCESSION NUMBER: 2003:134049 USPATFULL

TITLE: Nucleic acid encoding 3'-5' exonuclease of bacteriophage RM 378

INVENTOR(S): Hjorleifsdottir, Sigridur, Reykjavik, ICELAND  
Hreggvidsson, Gudmundur O., Reykjavik, ICELAND  
Fridjonsson, Olafur H., Reykjavik, ICELAND  
Aevarsson, Arnthor, Hveragerdi, ICELAND  
Kristjansson, Jakob K., Reykjavik, ICELAND

PATENT ASSIGNEE(S): Prokaria ltd., Reykjavik, ICELAND (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003092134	A1	20030515
APPLICATION INFO.:	US 2002-270859	A1	20021011 (10)
RELATED APPLN. INFO.:	Division of Ser. No. US 2000-585858, filed on 1 Jun 2000, GRANTED, Pat. No. US 6492161		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1999-137120P	19990602 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	HAMILTON, BROOK, SMITH & REYNOLDS, P.C., 530 VIRGINIA ROAD, P.O. BOX 9133, CONCORD, MA, 01742-9133	
NUMBER OF CLAIMS:	11	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	83 Drawing Page(s)	
LINE COUNT:	9001	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		
AB	A novel bacteriophage RM 378 of Rhodothermus marinus, the nucleic acids of its genome, nucleic acids comprising nucleotide sequences of open reading frames (ORFs) of its genome, and polypeptides encoded by the nucleic acids, are described.	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 14 OF 26 USPATFULL on STN

ACCESSION NUMBER: 2003:134043 USPATFULL

TITLE: Nucleic acid encoding RNA ligase of bacteriophage RM 378

INVENTOR(S): Hjorleifsdottir, Sigridur, Reykjavik, ICELAND  
Hreggvidsson, Gudmundur O., Reykjavik, ICELAND  
Fridjonsson, Olafur H., Reykjavik, ICELAND  
Aevarsson, Arnthor, Hveragerdi, ICELAND

PATENT ASSIGNEE(S): Kristjansson, Jakob K., Reykjavik, ICELAND  
Prokaria ltd., Reykjavik, ICELAND (non-U.S.  
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003092128	A1	20030515
APPLICATION INFO.:	US 2002-270710	A1	20021011 (10)
RELATED APPLN. INFO.:	Division of Ser. No. US 2000-585858, filed on 1 Jun 2000, GRANTED, Pat. No. US 6492161		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1999-137120P	19990602 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	HAMILTON, BROOK, SMITH & REYNOLDS, P.C., 530 VIRGINIA ROAD, P.O. BOX 9133, CONCORD, MA, 01742-9133	
NUMBER OF CLAIMS:	10	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	83 Drawing Page(s)	
LINE COUNT:	9038	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A novel bacteriophage RM 378 of Rhodothermus marinus, the nucleic acids of its genome, nucleic acids comprising nucleotide sequences of open reading frames (ORFs) of its genome, and polypeptides encoded by the nucleic acids, are described.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 15 OF 26 USPATFULL on STN

ACCESSION NUMBER: 2003:127179 USPATFULL

TITLE: Nucleic acid encoding DNA polymerase of bacteriophage RM 378

INVENTOR(S): Hjorleifsdottir, Sigridur, Reykjavik, ICELAND  
Hreggvidsson, Gudmundur O., Reykjavik, ICELAND  
Fridjonsson, Olafur H., Reykjavik, ICELAND  
Aevarsson, Arnthor, Hveragerdi, ICELAND  
Kristjansson, Jakob K., Reykjavik, ICELAND

PATENT ASSIGNEE(S): Prokaria Ltd., Reykjavik, ICELAND (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003087392	A1	20030508
APPLICATION INFO.:	US 2002-270786	A1	20021011 (10)
RELATED APPLN. INFO.:	Division of Ser. No. US 2000-585858, filed on 1 Jun 2000, GRANTED, Pat. No. US 6492161		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1999-137120P	19990602 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	HAMILTON, BROOK, SMITH & REYNOLDS, P.C., 530 VIRGINIA ROAD, P.O. BOX 9133, CONCORD, MA, 01742-9133	
NUMBER OF CLAIMS:	10	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	83 Drawing Page(s)	
LINE COUNT:	9015	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A novel bacteriophage RM 378 of Rhodothermus marinus, the nucleic acids of its genome, nucleic acids comprising nucleotide sequences of open reading frames (ORFs) of its genome, and polypeptides encoded by the nucleic acids, are described.



CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 16 OF 26 USPATFULL on STN

ACCESSION NUMBER: 2003:120309 USPATFULL  
TITLE: RNA ligase of bacteriophage RM 378  
INVENTOR(S): Hjorleifsdottir, Sigridur, Reykjavik, ICELAND  
Hreggvidsson, Gudmundur O., Reykjavik, ICELAND  
Fridjonsson, Olafur H., Reykjavik, ICELAND  
Aevarsson, Arnthor, Hveragerdi, ICELAND  
Kristjansson, Jakob K., Reykjavik, ICELAND  
PATENT ASSIGNEE(S): Prokaria ltd., Reykjavik, ICELAND (non-U.S.  
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003082790	A1	20030501
	US 6818425	B2	20041116
APPLICATION INFO.:	US 2002-270878	A1	20021011 (10)
RELATED APPLN. INFO.:	Division of Ser. No. US 2000-585858, filed on 1 Jun 2000, GRANTED, Pat. No. US 6492161		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1999-137120P	19990602 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	HAMILTON, BROOK, SMITH & REYNOLDS, P.C., 530 VIRGINIA ROAD, P.O. BOX 9133, CONCORD, MA, 01742-9133	
NUMBER OF CLAIMS:	4	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	83 Drawing Page(s)	
LINE COUNT:	9115	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A novel bacteriophage RM 378 of Rhodothermus marinus, the nucleic acids of its genome, nucleic acids comprising nucleotide sequences of open reading frames (ORFs) of its genome, and polypeptides encoded by the nucleic acids, are described.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 17 OF 26 USPATFULL on STN

ACCESSION NUMBER: 2003:120260 USPATFULL  
TITLE: Nucleic acid encoding DNA helicase of bacteriophage RM 378  
INVENTOR(S): Hjorleifsdottir, Sigridur, Reykjavik, ICELAND  
Hreggvidsson, Gudmundur O., Reykjavik, ICELAND  
Fridjonsson, Olafur H., Reykjavik, ICELAND  
Aevarsson, Arnthor, Hveragerdi, ICELAND  
Kristjansson, Jakob K., Reykjavik, ICELAND  
PATENT ASSIGNEE(S): Prokaria Ltd., Reykjavik, ICELAND (non-U.S.  
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003082741	A1	20030501
APPLICATION INFO.:	US 2002-270875	A1	20021011 (10)
RELATED APPLN. INFO.:	Division of Ser. No. US 2000-585858, filed on 1 Jun 2000, GRANTED, Pat. No. US 6492161		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1999-137120P	19990602 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	

LEGAL REPRESENTATIVE: HAMILTON, BROOK, SMITH & REYNOLDS, P.C., 530 VIRGINIA ROAD, P.O. BOX 9133, CONCORD, MA, 01742-9133

NUMBER OF CLAIMS: 10

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 83 Drawing Page(s)

LINE COUNT: 9016

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A novel bacteriophage RM 378 of Rhodothermus marinus, the nucleic acids of its genome, nucleic acids comprising nucleotide sequences of open reading frames (ORFs) of its genome, and polypeptides encoded by the nucleic acids, are described.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 18 OF 26 USPATFULL on STN

ACCESSION NUMBER: 2003:51159 USPATFULL

TITLE: Exonuclease-mediated nucleic acid reassembly in directed evolution

INVENTOR(S): Short, Jay M., Rancho Santa Fe, CA, UNITED STATES

PATENT ASSIGNEE(S): Diversa Corporation (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003036116	A1	20030220
	US 6635449	B2	20031021
APPLICATION INFO.:	US 2002-108077	A1	20020326 (10)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 2000-535754, filed on 27 Mar 2000, GRANTED, Pat. No. US 6361974		
	Continuation-in-part of Ser. No. US 2000-522289, filed on 9 Mar 2000, GRANTED, Pat. No. US 6358709		
	Continuation-in-part of Ser. No. US 2000-498557, filed on 4 Feb 2000, PENDING		
	Continuation-in-part of Ser. No. US 2000-495052, filed on 31 Jan 2000, PENDING		
	Continuation-in-part of Ser. No. US 1999-332835, filed on 14 Jun 1999, ABANDONED		
	Continuation-in-part of Ser. No. US 1999-276860, filed on 26 Mar 1999, GRANTED, Pat. No. US 6352842		
	Continuation-in-part of Ser. No. US 1999-267118, filed on 9 Mar 1999, GRANTED, Pat. No. US 6238884		
	Continuation-in-part of Ser. No. US 1999-246178, filed on 4 Feb 1999, GRANTED, Pat. No. US 6171820		
	Continuation-in-part of Ser. No. US 1998-185373, filed on 3 Nov 1998, GRANTED, Pat. No. US 6335179		
	Continuation of Ser. No. US 1996-760489, filed on 5 Dec 1996, GRANTED, Pat. No. US 5830696		
	Continuation-in-part of Ser. No. US 1996-677112, filed on 9 Jul 1996, GRANTED, Pat. No. US 5965408		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1995-8311P	19951207 (60)
	US 1995-8316P	19951207 (60)

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: JANE M. LOVE, PH.D., HALE AND DORR LLP, 300 PARK AVENUE, NEW YORK, NY, 10022

NUMBER OF CLAIMS: 1

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 6 Drawing Page(s)

LINE COUNT: 8979

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention provides methods of obtaining novel polynucleotides and encoded polypeptides by the use of non-stochastic methods of directed evolution (DirectEvolution.TM.). A particular advantage of exonuclease-mediated reassembly methods is the ability to reassemble nucleic acid strands that would otherwise be problematic to chimerize.

Exonuclease-mediated reassembly methods can be used in combination with other mutagenesis methods provided herein. These methods include non-stochastic polynucleotide site-saturation mutagenesis (Gene Site Saturation Mutagenesis.TM.) and non-stochastic polynucleotide reassembly (GeneReassembly.TM.). This invention provides methods of obtaining novel enzymes that have optimized physical &/or biological properties. Through use of the claimed methods, genetic vaccines, enzymes, small molecules, and other desirable molecules can be evolved towards desirable properties. For example, vaccine vectors can be obtained that exhibit increased efficacy for use as genetic vaccines. Vectors obtained by using the methods can have, for example, enhanced antigen expression, increased uptake into a cell, increased stability in a cell, ability to tailor an immune response, and the like. Furthermore, this invention provides methods of obtaining a variety of novel biologically active molecules, in the fields of antibiotics, pharmacotherapeutics, and transgenic traits.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 19 OF 26 USPATFULL on STN

ACCESSION NUMBER: 2003:37651 USPATFULL

TITLE: CLONED DNA POLYMERASES FROM THERMOTOGA MARITIMA AND MUTANTS THEREOF

INVENTOR(S): CHATTERJEE, DEB K., N POTOMAC, MD, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003027296	A1	20030206
APPLICATION INFO.:	US 1999-229173	A1	19990113 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 1996-706702, filed on 6 Sep 1996, GRANTED, Pat. No. US 5948614 Continuation-in-part of Ser. No. US 1996-689807, filed on 14 Aug 1996, ABANDONED Continuation-in-part of Ser. No. US 1995-537400, filed on 2 Oct 1995, GRANTED, Pat. No. US 5939301 Continuation of Ser. No. US 1995-537397, filed on 2 Oct 1995, ABANDONED Continuation-in-part of Ser. No. US 1995-525057, filed on 8 Sep 1995, ABANDONED		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	STERNE KESSLER GOLDSTEIN & FOX, 1100 NEW YORK AVENUE NW, SUITE 600, WASHINGTON, DC, 200053934		
NUMBER OF CLAIMS:	35		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	30 Drawing Page(s)		
LINE COUNT:	2761		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to a substantially pure thermostable DNA polymerase from Thermotoga (Tne and Tma) and mutants thereof. The Tne DNA polymerase has a molecular weight of about 100 kilodaltons and is more thermostable than Taq DNA polymerase. The mutant DNA polymerase has at least one mutation selected from the group consisting of (1) a first mutation that substantially reduces or eliminates 3'→5' exonuclease activity of said DNA polymerase; (2) a second mutation that substantially reduces or eliminates 5'→3' exonuclease activity of said DNA polymerase; (3) a third mutation in the O helix of said DNA polymerase resulting in said DNA polymerase becoming non-discriminating against dideoxynucleotides. The present invention also relates to the cloning and expression of the wild type or mutant DNA polymerases in E. coli, to DNA molecules containing the cloned gene, and to host cells which express said genes. The DNA polymerases of the invention may be used in well-known DNA sequencing and amplification reactions.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 20 OF 26 USPATFULL on STN

ACCESSION NUMBER: 2003:190673 USPATFULL  
 TITLE: Staphylococcus aureus polynucleotides and sequences  
 INVENTOR(S): Kunsch, Charles A., Norcross, GA, United States  
 Choi, Gil H., Rockville, MD, United States  
 Barash, Steven, Rockville, MD, United States  
 Dillon, Patrick J., Carlsbad, CA, United States  
 Fannon, Michael R., Silver Spring, MD, United States  
 Rosen, Craig A., Laytonsville, MD, United States  
 PATENT ASSIGNEE(S): Human Genome Sciences, Inc., Rockville, MD, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6593114	B1	20030715
APPLICATION INFO.:	US 1997-956171		19971020 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1997-781986, filed on 3 Jan 1997		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1996-9861P	19960105 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Duffy, Patricia A.	
LEGAL REPRESENTATIVE:	Human Genome Sciences, Inc.	
NUMBER OF CLAIMS:	15	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	2 Drawing Figure(s); 2 Drawing Page(s)	
LINE COUNT:	7835	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides polynucleotide sequences of the genome of Staphylococcus aureus, polypeptide sequences encoded by the polynucleotide sequences, corresponding polynucleotides and polypeptides, vectors and hosts comprising the polynucleotides, and assays and other uses thereof. The present invention further provides polynucleotide and polypeptide sequence information stored on computer readable media, and computer-based systems and methods which facilitate its use.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 21 OF 26 USPATFULL on STN

ACCESSION NUMBER: 2003:123418 USPATFULL  
 TITLE: Chlamydia pneumoniae polynucleotides and uses thereof  
 INVENTOR(S): Griffais, Remy, Momtrouge, FRANCE  
 Hoiseth, Susan K., Fairport, NY, United States  
 Zagursky, Robert John, Victor, NY, United States  
 Metcalf, Benjamin J., Rochester, NY, United States  
 Peek, Joel A., Pittsford, NY, United States  
 Sankaran, Banumathi, Penfield, NY, United States  
 Fletcher, Leah Diane, Geneseo, NY, United States  
 PATENT ASSIGNEE(S): Genset, S.A., FRANCE (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6559294	B1	20030506
APPLICATION INFO.:	US 1998-198452		19981123 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	FR 1997-14673	19971121
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Borin, Michael	
ASSISTANT EXAMINER:	Zhou, Shubo	

LEGAL REPRESENTATIVE: Saliwanchik, Lloyd & Saliwanchik  
NUMBER OF CLAIMS: 13  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 3 Drawing Figure(s); 3 Drawing Page(s)  
LINE COUNT: 8682

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The subject of the invention is the genomic sequence and the nucleotide sequences encoding polypeptides of Chlamydia pneumoniae, such as cellular envelope polypeptides, which are secreted or specific, or which are involved in metabolism, in the replication process or in virulence, polypeptides encoded by such sequences, as well as vectors including the said sequences and cells or animals transformed with these vectors. The invention also relates to transcriptional gene products of the Chlamydia pneumoniae genome, such as, for example, antisense and ribozyme molecules, which can be used to control growth of the microorganism. The invention also relates to methods of detecting these nucleic acids or polypeptides and kits for diagnosing Chlamydia pneumoniae infection. The invention also relates to a method of selecting compounds capable of modulating bacterial infection and a method for the biosynthesis or biodegradation of molecules of interest using the said nucleotide sequences or the said polypeptides. The invention finally comprises, pharmaceutical, in particular vaccine, compositions for the prevention and/or treatment of bacterial, in particular Chlamydia pneumoniae, infections.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 22 OF 26 USPATFULL on STN

ACCESSION NUMBER: 2002:301103 USPATFULL  
TITLE: Polymerases for analyzing or typing polymorphic nucleic acid fragments and uses thereof  
INVENTOR(S): Solus, Joseph, Gaithersburg, MD, UNITED STATES  
Yang, Shuwei, Rockville, MD, UNITED STATES  
Chatterjee, Deb K., North Potomac, MD, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002168646	A1	20021114
APPLICATION INFO.:	US 2001-891332	A1	20010627 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 1998-19160, filed on 6 Feb 1998, PATENTED		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-70562P	19980106 (60)
	US 1997-37393P	19970207 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	STERNE, KESSLER, GOLDSTEIN & FOX PLLC, 1100 NEW YORK AVENUE, N.W., SUITE 600, WASHINGTON, DC, 20005-3934	
NUMBER OF CLAIMS:	67	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	20 Drawing Page(s)	
LINE COUNT:	4577	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides methods for use in identifying, analyzing and typing polymorphic DNA fragments, particularly minisatellite, microsatellite or STR DNA fragments. In particular, the invention provides methods using DNA polymerases, more particularly thermostable DNA polymerases, and most particularly Thermotoga polymerases or mutants or derivatives thereof, whereby minisatellite, microsatellite or STRDNA molecules may be amplified and analyzed for polymorphisms. The invention also relates to polymerases having reduced, substantially reduced or eliminated ability to add non-template 3' nucleotides to a synthesized nucleic acid molecule. In accordance with the invention, such reduction

or elimination may be accomplished by modifying or mutating the desired polymerase.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 23 OF 26 USPATFULL on STN

ACCESSION NUMBER: 2002:325869 USPATFULL  
TITLE: Bacteriophage RM 378 of a thermophilic host organism  
INVENTOR(S): Hjorleifsdottir, Sigridur, Reykjavik, ICELAND  
Hreggvidsson, Gudmundur O., Reykjavik, ICELAND  
Fridjonsson, Olafur H., Reykjavik, ICELAND  
Aevarsson, Arnthor, Hveragerdi, ICELAND  
Kristjansson, Jakob K., Reykjavik, ICELAND  
PATENT ASSIGNEE(S): Prokaria ltd., Reykjavik, ICELAND (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6492161	B1	20021210
APPLICATION INFO.:	US 2000-585858		20000601 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1999-137120P	19990602 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Housel, James	
ASSISTANT EXAMINER:	Foley, Shanon	
LEGAL REPRESENTATIVE:	Hamilton, Brook, Smith & Reynolds, P.C.	
NUMBER OF CLAIMS:	4	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	83 Drawing Figure(s); 83 Drawing Page(s)	
LINE COUNT:	8781	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A novel bacteriophage RM 378 of Rhodothermus marinus, the nucleic acids of its genome, nucleic acids comprising nucleotide sequences of open reading frames (ORFs) of its genome, and polypeptides encoded by the nucleic acids, are described.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 24 OF 26 USPATFULL on STN

ACCESSION NUMBER: 2002:63712 USPATFULL  
TITLE: Exonuclease-mediated nucleic acid reassembly in directed evolution  
INVENTOR(S): Short, Jay M., Rancho Santa Fe, CA, United States  
Djavakhishvili, Tsotne David, San Diego, CA, United States  
Frey, Gerhard Johann, San Diego, CA, United States  
PATENT ASSIGNEE(S): Diversa Corporation, San Diego, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6361974	B1	20020326
APPLICATION INFO.:	US 2000-535754		20000327 (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 2000-522289, filed on 9 Mar 2000 Continuation-in-part of Ser. No. US 2000-498557, filed on 4 Feb 2000 Continuation-in-part of Ser. No. US 2000-495052, filed on 31 Jan 2000 Continuation-in-part of Ser. No. US 1999-332835, filed on 14 Jun 1999 Continuation-in-part of Ser. No. US 1999-276860, filed on 26 Mar 1999 Continuation-in-part of Ser. No. US 1999-267118, filed on 9 Mar 1999 Continuation-in-part of Ser. No. US 1999-246178, filed		

on 4 Feb 1999 Continuation-in-part of Ser. No. US 1998-185373, filed on 3 Nov 1998 Continuation of Ser. No. US 1996-760489, filed on 5 Dec 1996, now patented, Pat. No. US 5830696 Continuation-in-part of Ser. No. US 1997-962504, filed on 31 Oct 1997, now patented, Pat. No. US 6029056 Continuation-in-part of Ser. No. US 1996-677112, filed on 9 Jul 1996, now patented, Pat. No. US 5965408 Continuation-in-part of Ser. No. US 1996-651568, filed on 22 May 1996, now patented, Pat. No. US 5939250

	NUMBER	DATE
PRIORITY INFORMATION:	US 1995-8311P	19951207 (60)
	US 1995-8316P	19951207 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Park, Hankyel T.	
LEGAL REPRESENTATIVE:	Gray Cary Ware & Freidenrich, Haile, Lisa A., Shen, Greg	
NUMBER OF CLAIMS:	15	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	6 Drawing Figure(s); 6 Drawing Page(s)	
LINE COUNT:	7313	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention provides methods of obtaining novel polynucleotides and encoded polypeptides by the use of non-stochastic methods of directed evolution (DirectEvolution.TM.). A particular advantage of exonuclease-mediated reassembly methods is the ability to reassemble nucleic acid strands that would otherwise be problematic to chimerize. Exonuclease-mediated reassembly methods can be used in combination with other mutagenesis methods provided herein. These methods include non-stochastic polynucleotide site-saturation mutagenesis (Gene Site Saturation Mutagenesis.TM.) and non-stochastic polynucleotide reassembly (GeneReassembly.TM.). This invention provides methods of obtaining novel enzymes that have optimized physical &/or biological properties. Through use of the claimed methods, genetic vaccines, enzymes, small molecules, and other desirable molecules can be evolved towards desirable properties. For example, vaccine vectors can be obtained that exhibit increased efficacy for use as genetic vaccines. Vectors obtained by using the methods can have, for example, enhanced antigen expression, increased uptake into a cell, increased stability in a cell, ability to tailor an immune response, and the like. Furthermore, this invention provides methods of obtaining a variety of novel biologically active molecules, in the fields of antibiotics, pharmacotherapeutics, and transgenic traits.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 25 OF 26 USPATFULL on STN

ACCESSION NUMBER: 2000:105661 USPATFULL  
 TITLE: Detectably labeled, dual conformation oligonucleotide probes, assays and kits  
 INVENTOR(S): Tyagi, Sanjay, New York, NY, United States  
 Kramer, Fred R., Riverdale, NY, United States  
 Lizardi, Paul M., Cuernavaca, Mexico  
 PATENT ASSIGNEE(S): The Public Health Research Institute of the City of New York, Inc., NY, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6103476		20000815
APPLICATION INFO.:	US 1999-268402		19990315 (9)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1995-439819, filed on 12 May 1995, now patented, Pat. No. US 5925517 which is a		

continuation-in-part of Ser. No. US 1993-152006, filed  
on 12 Nov 1993, now abandoned

DOCUMENT TYPE: Utility  
FILE SEGMENT: Granted  
PRIMARY EXAMINER: Campbell, Eggerton A.  
LEGAL REPRESENTATIVE: Fish & Richardson P.C.  
NUMBER OF CLAIMS: 12  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 14 Drawing Figure(s); 14 Drawing Page(s)  
LINE COUNT: 2522  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Unimolecular and bimolecular hybridization probes for the detection of nucleic acid target sequences comprise a target complement sequence, an affinity pair holding the probe in a closed conformation in the absence of target sequence, and either a label pair that interacts when the probe is in the closed conformation or, for certain unimolecular probes, a non-interactive label. Hybridization of the target and target complement sequences shifts the probe to an open conformation. The shift is detectable due to reduced interaction of the label pair or by detecting a signal from a non-interactive label. Certain unimolecular probes can discriminate between target and non-target sequences differing by as little as one nucleotide. Also, universal stems and kits useful for constructing said probes. Also, assays utilizing said probes and kits for performing such assays.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 26 OF 26 USPATFULL on STN

ACCESSION NUMBER: 1999:81709 USPATFULL  
TITLE: Detectably labeled dual conformation oligonucleotide probes, assays and kits  
INVENTOR(S): Tyagi, Sanjay, New York, NY, United States  
Kramer, Fred R., Riverdale, NY, United States  
Lizardi, Paul M., Cuernavaca, Mexico  
PATENT ASSIGNEE(S): The Public Health Research Institute of the City of New York, Inc., New York, NY, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5925517		19990720
APPLICATION INFO.:	US 1995-439819		19950512 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1993-152006, filed on 12 Nov 1993, now abandoned		

DOCUMENT TYPE: Utility  
FILE SEGMENT: Granted  
PRIMARY EXAMINER: Campbell, Eggerton A.  
LEGAL REPRESENTATIVE: Fish & Richardson P.C.  
NUMBER OF CLAIMS: 119  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 14 Drawing Figure(s); 14 Drawing Page(s)  
LINE COUNT: 2983  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Unimolecular and bimolecular hybridization probes for the detection of nucleic acid target sequences comprise a target complement sequence, an affinity pair holding the probe in a closed conformation in the absence of target sequence, and either a label pair that interacts when the probe is in the closed conformation or, for certain unimolecular probes, a non-interactive label. Hybridization of the target and target complement sequences shifts the probe to an open conformation. The shift is detectable due to reduced interaction of the label pair or by detecting a signal from a non-interactive label. Certain unimolecular probes can discriminate between target and non-target sequences differing by as little as one nucleotide. Also, universal stems and kits useful for constructing said probes. Also, assays utilizing said probes



and kits for performing such assays.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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(FILE 'HOME' ENTERED AT 21:40:09 ON 25 MAY 2006)

INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, ANTE, AQUALINE, AQUASCI, BIOENG, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CAPLUS, CEABA-VTB, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU, DGENE, DISSABS, DRUGB, DRUGMONOG2, DRUGU, EMBAL, EMBASE, ...' ENTERED AT 21:40:31 ON 25 MAY 2006  
SEA POLYMERAS? (S)DNA?

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5500 FILE ADISCTI  
260 FILE ADISINSIGHT  
63 FILE ADISNEWS  
4297 FILE AGRICOLA  
379 FILE ANABSTR  
74 FILE ANTE  
108 FILE AQUALINE  
1629 FILE AQUASCI  
5780 FILE BIOENG  
71017 FILE BIOSIS  
20594 FILE BIOTECHABS  
20594 FILE BIOTECHDS  
43907 FILE BIOTECHNO  
14152 FILE CABA  
59120 FILE CAPLUS  
1051 FILE CEABA-VTB  
177 FILE CIN  
908 FILE CONFSCI  
27 FILE CROPB  
80 FILE CROPU  
604 FILE DDFB  
1919 FILE DDFU  
133931 FILE DGENE  
3820 FILE DISSABS  
604 FILE DRUGB  
3190 FILE DRUGU  
525 FILE EMBAL  
51493 FILE EMBASE  
28077 FILE ESBIODASE  
623 FILE FROSTI  
407 FILE FSTA  
1534612 FILE GENBANK  
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5626 FILE JICST-EPLUS  
38 FILE KOSMET  
36341 FILE LIFESCI  
57883 FILE MEDLINE  
507 FILE NTIS  
2 FILE NUTRACEUT  
507 FILE OCEAN  
31260 FILE PASCAL  
208 FILE PCTGEN  
547 FILE PHAR  
35 FILE PHARMAML  
2 FILE PHIC  
272 FILE PHIN  
2652 FILE PROMT

236 FILE PROUSDDR  
 6 FILE RDISCLOSURE  
 40090 FILE SCISEARCH  
 5 FILE SYNTHLINE  
 25034 FILE TOXCENTER  
 67666 FILE USPATFULL  
 6062 FILE USPAT2  
 8 FILE VETB  
 52 FILE VETU  
 132 FILE WATER  
 6559 FILE WPIDS  
 45 FILE WPIFV  
 6559 FILE WPINDEX  
 171 FILE IPA  
 256 FILE NAPRALERT  
 2364 FILE NLDB

L1 QUE POLYMERAS?(S) DNA?

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D RANK

FILE 'BIOSIS, USPATFULL, CAPLUS, MEDLINE, EMBASE, BIOTECHNO, SCISEARCH, LIFESCI' ENTERED AT 21:44:53 ON 25 MAY 2006

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 L3 30762 SEA L2 (S) (PFU? OR TAQ? OR FURIO? OR AQUATIC?)  
 L4 4130 SEA L3 (S) EXONUCLEAS?  
 L5 94 SEA L4 (S) (ENHANC? OR DUTPAS?)  
 L6 90 DUP REM L5 (4 DUPLICATES REMOVED)  
 D TI L6 1-90  
 D IBIB ABS L6 10 11 16 28 36 44 48 74 78 83 88 90  
 L7 26 SEA L4 (S) (GP32? OR GP?)  
 L8 26 DUP REM L7 (0 DUPLICATES REMOVED)  
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